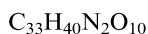
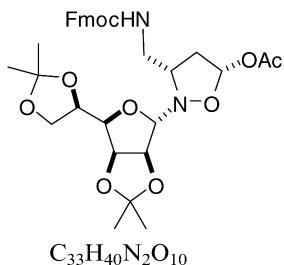


Stereochemistry abstracts

Pedro Merino,* Tomás Tejero, Juan Matés, Ugo Chiacchio,*
Antonino Corsaro and Giovanni Romeo*

Tetrahedron: Asymmetry 18 (2007) 1517



5-Acetoxy-3-(Fmoc-aminomethyl)-2-(2,3:5,6-di-O-isopropilyden- α -D-manno-1-yl)isoxazolidine

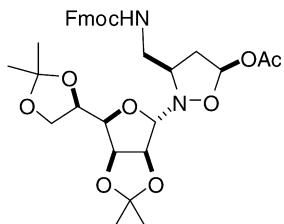
$[\alpha]_D^{25} = +50$ (*c* 1.28, CHCl₃)

Source of chirality: D-mannose

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

Pedro Merino,* Tomás Tejero, Juan Matés, Ugo Chiacchio,*
Antonino Corsaro and Giovanni Romeo*

Tetrahedron: Asymmetry 18 (2007) 1517



5-Acetoxy-3-(Fmoc-aminomethyl)-2-(2,3:5,6-di-O-isopropilyden- α -D-manno-1-yl)isoxazolidine

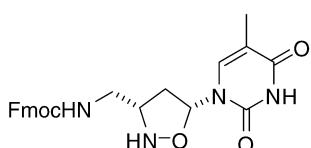
$[\alpha]_D^{25} = -2$ (*c* 0.38, CHCl₃)

Source of chirality: D-mannose

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

Pedro Merino,* Tomás Tejero, Juan Matés, Ugo Chiacchio,*
Antonino Corsaro and Giovanni Romeo*

Tetrahedron: Asymmetry 18 (2007) 1517



3-(Fmoc-aminomethyl)-5-(5-methyl-2,4-dioxo-3,4-dihdropyrimidin-1(2*H*)-yl)isoxazolidine

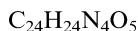
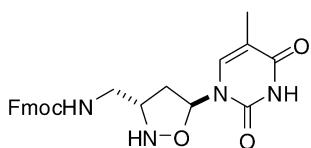
$[\alpha]_D^{25} = +4$ (*c* 0.82, CHCl₃)

Source of chirality: D-mannose

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

Pedro Merino,* Tomás Tejero, Juan Matés, Ugo Chiacchio,*
Antonino Corsaro and Giovanni Romeo*

Tetrahedron: Asymmetry 18 (2007) 1517

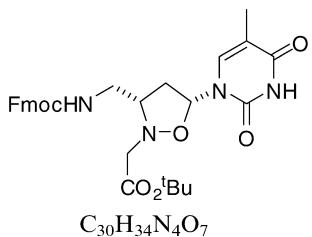


3-(Fmoc-aminomethyl)-5-(5-methyl-2,4-dioxo-3,4-dihdropyrimidin-1(2*H*)-yl)isoxazolidine

$[\alpha]_D^{25} = +8$ (*c* 1.09, CHCl₃)

Source of chirality: D-mannose

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

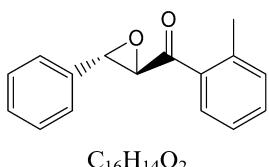


2-(*tert*-Butoxycarbonylamino)-3-(Fmoc-aminomethyl)-5-(5-methyl-2,4-dioxo-3,4-dihydropyrimidin-1(2*H*)-yl)isoxazolidine

$[\alpha]_D^{25} = +3$ (*c* 0.80, CHCl₃)

Source of chirality: D-mannose

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



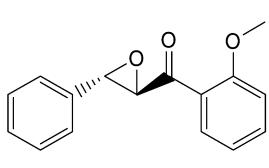
(2*R*,3*S*)-2,3-Epoxy-1-(2-tolyl)-3-phenylpropan-1-one

Ee = 71% (¹H NMR with Eu(hfc)₃)

$[\alpha]_D^{22} = -166.9$ (*c* 1, CH₂Cl₂)

Source of chirality: asymmetric synthesis by chiral catalyst

Absolute configuration: (2*R*,3*S*) (assigned by CD spectroscopy)



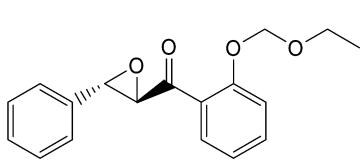
(2*R*,3*S*)-2,3-Epoxy-1-(2-methoxyphenyl)-3-phenylpropan-1-one

Ee = 83% (¹H NMR with Eu(hfc)₃)

$[\alpha]_D^{22} = -98.5$ (*c* 1, CH₂Cl₂)

Source of chirality: asymmetric synthesis by chiral catalyst

Absolute configuration: (2*R*,3*S*) (assigned by CD spectroscopy)



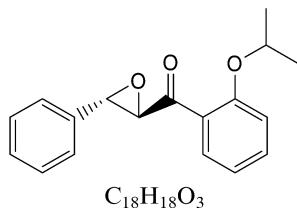
(2*R*,3*S*)-2,3-Epoxy-1-(2-ethoxymethoxyphenyl)-3-phenylpropan-1-one

Ee = 70% (¹H NMR with Eu(hfc)₃)

$[\alpha]_D^{22} = -102.3$ (*c* 1, CH₂Cl₂)

Source of chirality: asymmetric synthesis by chiral catalyst

Absolute configuration: (2*R*,3*S*) (assigned by CD spectroscopy)



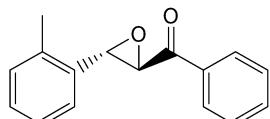
(*2R,3S*)-2,3-Epoxy-1-(2-isopropoxyphenyl)-3-phenylpropan-1-one

Ee = 79% (1H NMR with Eu(hfc)₃)

$[\alpha]_D^{22} = -131$ (*c* 1, CH₂Cl₂)

Source of chirality: asymmetric synthesis by chiral catalyst

Absolute configuration: (*2R,3S*) (assigned by CD spectroscopy)



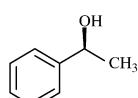
(*2R,3S*)-2,3-Epoxy-1-phenyl-3-(2-tolyl)-propan-1-one

Ee = 76% (1H NMR with Eu(hfc)₃)

$[\alpha]_D^{22} = -75.7$ (*c* 1, CH₂Cl₂)

Source of chirality: asymmetric synthesis by chiral catalyst

Absolute configuration: (*2R,3S*) (assigned by CD spectroscopy)



(*S*)-1-Phenylethanol

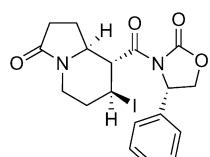
Ee >99 HPLC

$[\alpha]_D = -52$ (*c* 0.184, CH₂Cl₂)

Source of chirality: microbial reduction

Absolute configuration: (*S*)

Retention time (min): (*R*), 12.3; (*S*), 13.5

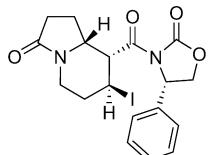


[*7S,8R,8(4S),8aS*]-7-Iodo-8-(2-oxo-4-phenyloxazolidine-3-carbonyl)hexahydroindorizin-3-one

$[\alpha]_D = +42.3$ (*c* 1.01, CHCl₃)

Source of chirality: (*S*)-phenylglycine

Absolute configuration: [*7S,8R,8(4S),8aS*]



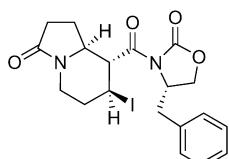
C₁₈H₁₉IN₂O₄

[7S,8R,8(4S),8aR]-7-Iodo-8-(2-oxo-4-phenyloxazolidine-3-carbonyl)hexahydroindorizin-3-one

$[\alpha]_D = +209.4$ (*c* 1.01, CHCl₃)

Source of chirality: (S)-phenylglycine

Absolute configuration: [7S,8R,8(4S),8aR]



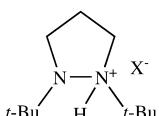
C₁₉H₂₁IN₂O₄

[7S,8R,8(4S),8aS]-8-(4-Benzyl-2-oxooxazolidine-3-carbonyl)-7-iodohexahydroindorizin-3-one

$[\alpha]_D = +52.2$ (*c* 1.01, CHCl₃)

Source of chirality: (S)-phenylalanine

Absolute configuration: [7S,8R,8(4S),8aS]



X = (R)-(-)-1,1'-binaphthyl-2,2'-diyl hydrogenphosphonate anion

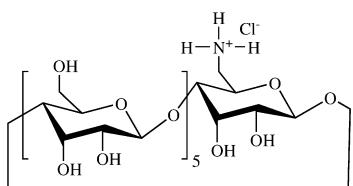
C₃₁H₃₇N₂O₄P

trans-1,2-Di-tert-butylpyrazolidine-(R)-(-)-1,1'-binaphthyl-2,2'-diyl hydrogenphosphate

Ee ≥ 93% (according to ¹H NMR)

$[\alpha]_D^{20} = -11.2$ (*c* 0.032, MeOH)

Absolute configuration: unknown

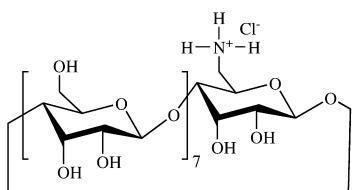


C₃₆H₆₂NClO₂₉

Mono-6^A-N-ammonium-6^A-deoxy-α-cyclodextrin chloride

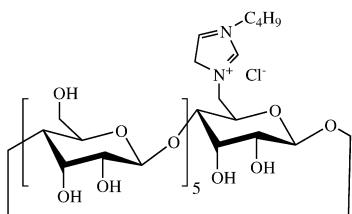
$[\alpha]_D = +74.9$ (*c* 1.0, water)

Source of chirality: α-cyclodextrin



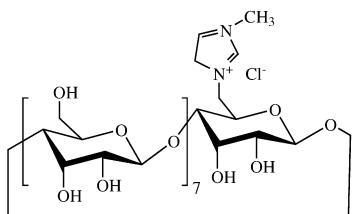
$[\alpha]_D = +102.8$ (*c* 1.0, water)
Source of chirality: γ -cyclodextrin

$C_{48}H_{82}NClO_{31}$
Mono-6^A-N-ammonium-6^A-deoxy- γ -cyclodextrin chloride



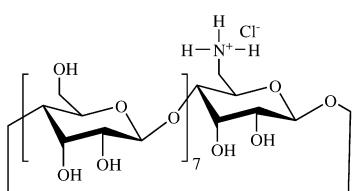
$[\alpha]_D = +83.6$ (*c* 1.0, water)
Source of chirality: α -cyclodextrin

$C_{43}H_{71}N_2ClO_{29}$
Mono-6^A-(1-butyl-3-imidazolium)-6^A-deoxy- α -cyclodextrin chloride



$[\alpha]_D = +125.4$ (*c* 1.0, water)
Source of chirality: γ -cyclodextrin

$C_{52}H_{85}N_2ClO_{39}$
Mono-6^A-(1-methyl-3-imidazolium)-6^A-deoxy- γ -cyclodextrin chloride

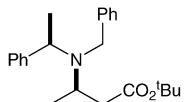


$[\alpha]_D = +131.2$ (*c* 1.0, water)
Source of chirality: γ -cyclodextrin

$C_{51}H_{88}NClO_{39}$
Mono-6^A-propylammonium-6^A-deoxy- γ -cyclodextrin chloride

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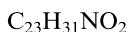
Tetrahedron: Asymmetry 18 (2007) 1554



$[\alpha]_D^{25} = -5.2$ (*c* 1.1, CHCl₃)

Source of chirality: asymmetric synthesis

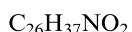
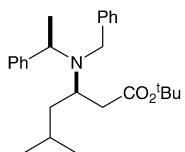
Absolute configuration: (3*R*, α *R*)



tert-Butyl (3*R*, α *R*)-3-(*N*-benzyl-*N*- α -methylbenzylamino)-butanoate

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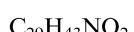
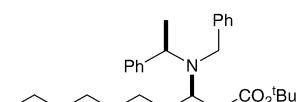
Tetrahedron: Asymmetry 18 (2007) 1554



tert-Butyl (3*R*, α *R*)-3-(*N*-benzyl-*N*- α -methylbenzylamino)-5-methylhexanoate

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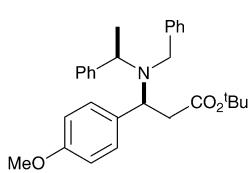
Tetrahedron: Asymmetry 18 (2007) 1554



tert-Butyl (3*R*, α *R*)-3-(*N*-benzyl-*N*- α -methylbenzylamino)decanoate

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Tetrahedron: Asymmetry 18 (2007) 1554

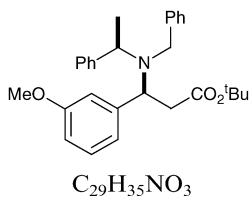


tert-Butyl (3*S*, α *R*)-3-(*N*-benzyl-*N*- α -methylbenzylamino)-3-(4-methoxyphenyl)propanoate

$[\alpha]_D^{25} = +2.0$ (*c* 2.1, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (3*S*, α *R*)

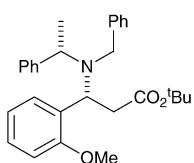


tert-Butyl (3*S*, α *R*)-3-(*N*-benzyl-*N*- α -methylbenzylamino)-3-(3-methoxyphenyl)propanoate

$[\alpha]_D^{25} = +3.3$ (*c* 1.4, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (3*S*, α *R*)

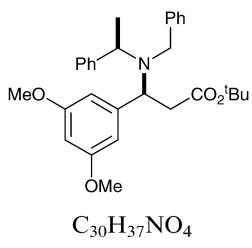


tert-Butyl (3*R*, α *S*)-3-(*N*-benzyl-*N*- α -methylbenzylamino)-3-(2-methoxyphenyl)propanoate

$[\alpha]_D^{25} = -13.7$ (*c* 2.0, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (3*R*, α *S*)

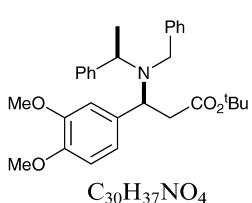


tert-Butyl (3*S*, α *R*)-3-(*N*-benzyl-*N*- α -methylbenzylamino)-3-(3,5-dimethoxyphenyl)propanoate

$[\alpha]_D^{25} = +1.8$ (*c* 1.0, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (3*S*, α *R*)

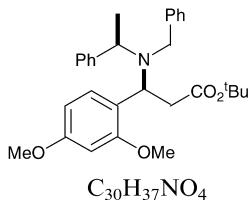


tert-Butyl (3*S*, α *R*)-3-(*N*-benzyl-*N*- α -methylbenzylamino)-3-(3,5-dimethoxyphenyl)propanoate

$[\alpha]_D^{25} = +1.0$ (*c* 1.1, CHCl₃)

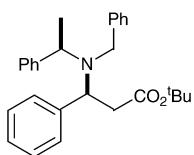
Source of chirality: asymmetric synthesis

Absolute configuration: (3*S*, α *R*)



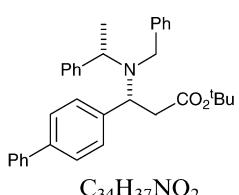
tert-Butyl (3*S*, α *R*)-3-(*N*-benzyl-*N*- α -methylbenzylamino)-3-(2,4-dimethoxyphenyl)propanoate

$[\alpha]_D^{25} = +8.6$ (*c* 1.0, CHCl₃)
Source of chirality: asymmetric synthesis
Absolute configuration: (3*S*, α *R*)



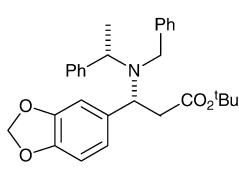
tert-Butyl (3*S*, α *R*)-3-(*N*-benzyl-*N*- α -methylbenzylamino)-3-phenylpropanoate

$[\alpha]_D^{25} = +7.3$ (*c* 0.8, CHCl₃)
Source of chirality: asymmetric synthesis
Absolute configuration: (3*S*, α *R*)



tert-Butyl (3*R*, α *S*)-3-(*N*-benzyl-*N*- α -methylbenzylamino)-3-(4-biphenyl)propanoate

$[\alpha]_D^{25} = +1.7$ (*c* 1.2, CHCl₃)
Source of chirality: asymmetric synthesis
Absolute configuration: (3*R*, α *S*)

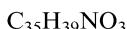
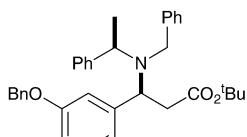


tert-Butyl (3*R*, α *S*)-3-(*N*-benzyl-*N*- α -methylbenzylamino)-3-(3-piperon-3-yl)propanoate

$[\alpha]_D^{25} = -6.3$ (*c* 1.5, CHCl₃)
Source of chirality: asymmetric synthesis
Absolute configuration: (3*R*, α *S*)

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tert-Butyl (3*S*,*α**R*)-3-(*N*-benzyl-*N*-*α*-methylbenzylamino)-3-(3-benzyloxyphenyl)propanoate

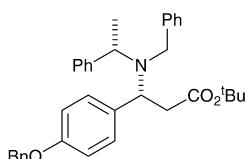
[α]_D²⁵ = +2.7 (*c* 1.1, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (3*S*,*α**R*)

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tert-Butyl (3*R*,*α**S*)-3-(*N*-benzyl-*N*-*α*-methylbenzylamino)-3-(4-benzyloxyphenyl)propanoate

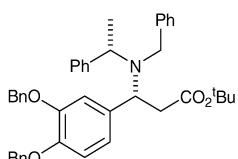
[α]_D²⁵ = -2.1 (*c* 1.4, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (3*R*,*α**S*)

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Tetrahedron: Asymmetry 18 (2007) 1554



tert-Butyl (3*R*,*α**S*)-3-(*N*-benzyl-*N*-*α*-methylbenzylamino)-3-(3,4-dibenzyloxyphenyl)propanoate

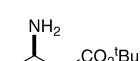
[α]_D²⁵ = +2.2 (*c* 2.3, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (3*R*,*α**S*)

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Tetrahedron: Asymmetry 18 (2007) 1554



tert-Butyl (R)-3-aminobutanoate

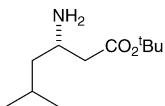
[α]_D²⁵ = -22.2 (*c* 0.5, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (R)

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Tetrahedron: Asymmetry 18 (2007) 1554



C₁₁H₂₃NO₂
tert-Butyl (*S*)-3-amino-5-methylhexanoate

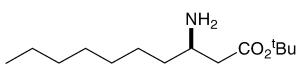
[α]_D²⁵ = +21.2 (c 2.9, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

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Tetrahedron: Asymmetry 18 (2007) 1554



C₁₄H₂₉NO₂
tert-Butyl (*R*)-3-aminodecanoate

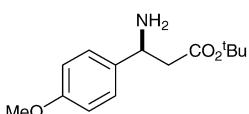
[α]_D²⁵ = -11.3 (c 1.3, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*)

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Tetrahedron: Asymmetry 18 (2007) 1554



C₁₄H₂₁NO₃
tert-Butyl (*S*)-3-amino-3-(4-methoxyphenyl)propanoate

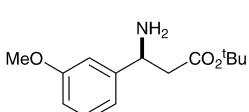
[α]_D²⁵ = +16.5 (c 1.4, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Stephen G. Davies,* Andrew W. Mulvaney, Angela J. Russell and Andrew D. Smith

Tetrahedron: Asymmetry 18 (2007) 1554



C₁₄H₂₁NO₃
tert-Butyl (*S*)-3-amino-3-(3-methoxyphenyl)propanoate

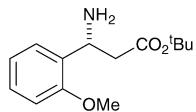
[α]_D²⁵ = -15.5 (c 1.4, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Stephen G. Davies,* Andrew W. Mulvaney, Angela J. Russell and Andrew D. Smith

Tetrahedron: Asymmetry 18 (2007) 1554



C₁₄H₂₁NO₃
tert-Butyl (R)-3-amino-3-(2-methoxyphenyl)propanoate

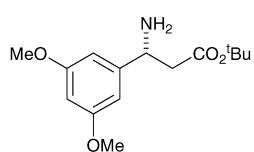
[α]_D²⁵ = +22.4 (c 2.4, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (R)

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Tetrahedron: Asymmetry 18 (2007) 1554



C₁₅H₂₃NO₄
tert-Butyl (R)-3-amino-3-(3,5-dimethoxyphenyl)propanoate

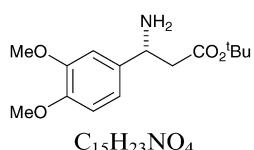
[α]_D²⁵ = +12.3 (c 2.2, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (R)

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C₁₅H₂₃NO₄
tert-Butyl (R)-3-amino-3-(3,4-dimethoxyphenyl)propanoate

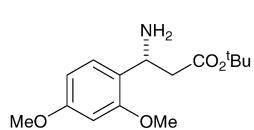
[α]_D²⁵ = +11.1 (c 2.5, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (R)

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Tetrahedron: Asymmetry 18 (2007) 1554

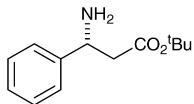


C₁₅H₂₃NO₄
tert-Butyl (R)-3-amino-3-(2,4-dimethoxyphenyl)propanoate

[α]_D²⁵ = +17.0 (c 2.2, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (R)

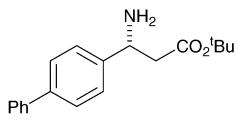


C₁₃H₁₉NO₂
tert- Butyl (R)-3-amino-3-phenylpropanoate

[α]_D²⁵ = +18.3 (c 2.5, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (R)

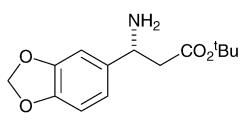


C₁₉H₂₃NO₂
tert-Butyl (R)-3-amino-3-(4-biphenyl)propanoate

[α]_D²⁵ = +11.8 (c 1.4, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (R)

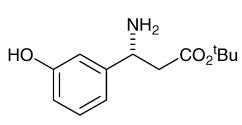


C₁₄H₁₉NO₄
tert-Butyl (R)-3-amino-3-(piperon-3-yl)propanoate

[α]_D²⁵ = +13.2 (c 2.2, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (R)



C₁₃H₁₉NO₃
tert-Butyl (R)-3-amino-3-(3-hydroxyphenyl)propanoate

[α]_D²⁵ = +7.8 (c 1.2, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (R)

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tert-Butyl (R)-3-amino-3-(4-hydroxyphenyl)propanoate

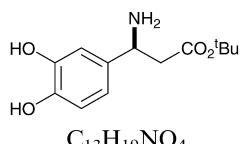
$[\alpha]_D^{25} = +9.0$ (*c* 1.1, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (R)

Stephen G. Davies,* Andrew W. Mulvaney, Angela J. Russell and Andrew D. Smith

Tetrahedron: Asymmetry 18 (2007) 1554



tert-Butyl (S)-3-amino-3-(3,4-dihydroxyphenyl)propanoate

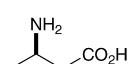
$[\alpha]_D^{25} = +8.0$ (*c* 0.4, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (S)

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(R)-3-Aminobutanoic acid

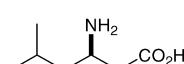
$[\alpha]_D^{25} = -32.4$ (*c* 0.6, H₂O)

Source of chirality: asymmetric synthesis

Absolute configuration: (R)

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(R)-3-Amino-5-methylhexanoic acid

$[\alpha]_D^{25} = -27.9$ (*c* 0.7, H₂O)

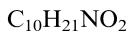
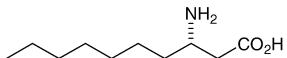
Source of chirality: asymmetric synthesis

Absolute configuration: (R)

$[\alpha]_D^{25} = +2.5$ (*c* 0.1, H₂O)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

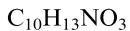
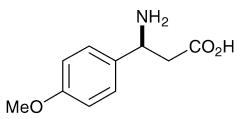


(*S*)-3-Aminodecanoic acid

$[\alpha]_D^{25} = -0.8$ (*c* 0.2, H₂O)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

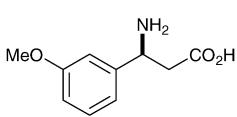


(*S*)-3-Amino-3-(4-methoxyphenyl)propanoic acid

$[\alpha]_D^{25} = -3.9$ (*c* 1.0, H₂O)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

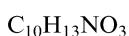
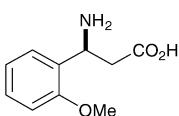


(*S*)-3-Amino-3-(3-methoxyphenyl)propanoic acid

$[\alpha]_D^{25} = +18.8$ (*c* 0.6, H₂O)

Source of chirality: asymmetric synthesis

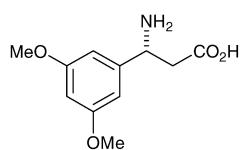
Absolute configuration: (*S*)



(*S*)-3-Amino-3-(3-methoxyphenyl)propanoic acid

Stephen G. Davies,* Andrew W. Mulvaney, Angela J. Russell and Andrew D. Smith

Tetrahedron: Asymmetry 18 (2007) 1554



C₁₁H₁₅NO₄
(*R*)-3-Amino-3-(3,5-dimethoxyphenyl)propanoic acid

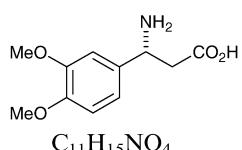
[α]_D²⁵ = -0.8 (*c* 0.7, H₂O)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*)

Stephen G. Davies,* Andrew W. Mulvaney, Angela J. Russell and Andrew D. Smith

Tetrahedron: Asymmetry 18 (2007) 1554



C₁₁H₁₅NO₄
(*R*)-3-Amino-3-(3,4-dimethoxyphenyl)propanoic acid

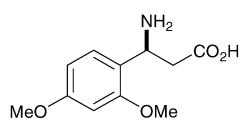
[α]_D²⁵ = -0.9 (*c* 0.7, H₂O)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*)

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C₁₁H₁₅NO₄
(*S*)-3-Amino-3-(2,4-dimethoxyphenyl)propanoic acid

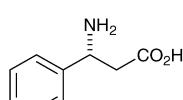
[α]_D²⁵ = +5.3 (*c* 0.6, H₂O)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Stephen G. Davies,* Andrew W. Mulvaney, Angela J. Russell and Andrew D. Smith

Tetrahedron: Asymmetry 18 (2007) 1554

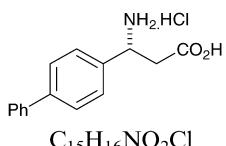


C₉H₁₁NO₂
(*R*)-3-Amino-3-phenylpropanoic acid

[α]_D²⁵ = +6.8 (*c* 0.9, H₂O)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*)

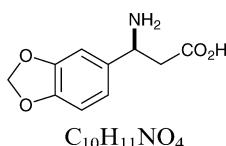


(*R*)-3-Amino-3-(4-biphenyl)propanoic acid hydrochloride

$[\alpha]_D^{25} = -3.3$ (*c* 0.8, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*)

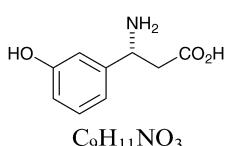


(*S*)-3-Amino-3-(piperon-3-yl)propanoic acid

$[\alpha]_D^{25} = +42.4$ (*c* 0.3, H₂O)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)



(*R*)-3-Amino-3-(3-hydroxyphenyl)propanoic acid

$[\alpha]_D^{25} = +7.2$ (*c* 0.5, H₂O)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*)



(*R*)-3-Amino-3-(4-hydroxyphenyl)propanoic acid

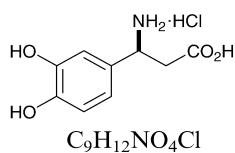
$[\alpha]_D^{25} = -6.0$ (*c* 0.6, H₂O)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*)

Stephen G. Davies,* Andrew W. Mulvaney, Angela J. Russell and Andrew D. Smith

Tetrahedron: Asymmetry 18 (2007) 1554



(*S*)-3-Amino-3-(3,4-hydroxyphenyl)propanoic acid hydrochloride

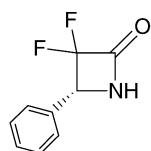
$[\alpha]_D^{25} = +4.8$ (*c* 0.2, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

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

Tetrahedron: Asymmetry 18 (2007) 1567



(*R*)-3,3-Difluoro-4-phenyl-2-azetidinone

Ee >99%

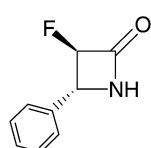
$[\alpha]_D^{22} = -76.6$ (*c* 1.0, CHCl₃)

Source of chirality: lipase PS-catalyzed resolution

Absolute configuration: (*R*)

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

Tetrahedron: Asymmetry 18 (2007) 1567



(3*R*,4*R*)-3-Fluoro-4-phenyl-2-azetidinone

Ee >99%

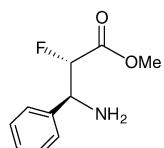
$[\alpha]_D^{22} = -19.1$ (*c* 1.0, CHCl₃)

Source of chirality: lipase PS-catalyzed resolution

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

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

Tetrahedron: Asymmetry 18 (2007) 1567



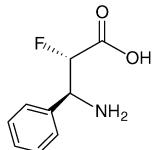
(*2S,3S*)-Methyl 2-fluoro-3-amino-3-phenyl-propanoate

Ee >99%

$[\alpha]_D^{22} = +10.1$ (*c* 1.0, CHCl₃)

Source of chirality: lipase PS-catalyzed methanolysis

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



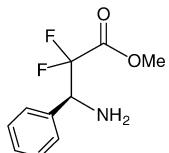
$C_9H_{10}FNO_2$
(2S,3S)-2-Fluoro-3-amino-3-phenyl-propanoic acid

Ee >99%

 $[\alpha]_D^{22} = -42.8$ (*c* 0.4, CH₃OH)

Source of chirality: derivative of the product from lipase PS-catalyzed methanolysis

Absolute configuration: (2S,3S)



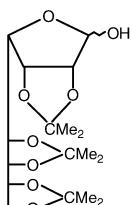
$C_{10}H_{11}F_2NO_2$
(S)-Methyl 2,2-difluoro-3-amino-3-phenyl-propanoate

Ee >99%

 $[\alpha]_D^{22} = -5.8$ (*c* 1.0, CHCl₃)

Source of chirality: lipase PS-catalyzed methanolysis

Absolute configuration: (S)

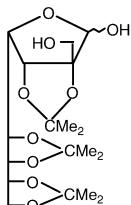


$C_{17}H_{28}O_8$
2,3:5,6:7,8-Tri-O-isopropylidene-D-erythro-L-manno-octofuranose

Ee = 100%

 $[\alpha]_D = +13.0$ (*c* 1.0, acetone)

Source of chirality: D-erythro-L-manno-octose as starting material

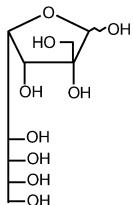


$C_{18}H_{30}O_9$
2,3:5,6:7,8-Tri-O-isopropylidene-2-C-(hydroxymethyl)-D-erythro-L-manno-octofuranose

Ee = 100%

 $[\alpha]_D = +5.0$ (*c* 1.0, acetone)

Source of chirality: D-erythro-L-manno-octose as starting material



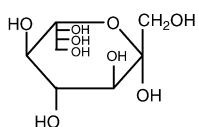
Ee = 100%

 $[\alpha]_D = -27.0$ (*c* 1.0, H₂O)

Source of chirality: D-erythro-L-manno-octose as starting material



2-C-(Hydroxymethyl)-D-erythro-L-manno-octose



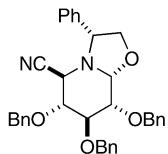
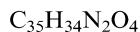
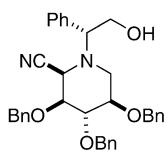
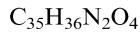
Ee = 100%

 $[\alpha]_D = -47.5$ (*c* 0.8, H₂O)

Source of chirality: D-erythro-L-manno-octose as starting material

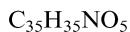
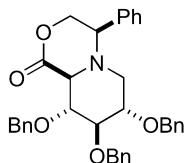


D-erythro-L-gluco-nonulose

 $[\alpha]_D = -35$ (*c* 0.2, CHCl₃)Source of chirality: (R)-(-)-phenylglycinol and isopropylidene- α -D-glucofuranoseHexahydro-3-phenyl-6,7,8-tribenzylxyloxy-(3*R*)-[3*α*,5*β*,6*α*,7*β*,8*α*,8*a**β*]-5*H*-oxazolo[3,2-*a*]pyridine-5-carbonitrile $[\alpha]_D = -36$ (*c* 0.4, CHCl₃)Source of chirality: (R)-(-)-phenylglycinol and isopropylidene- α -D-glucofuranose3,4,5-Tribenzyloxy-1-(2-hydroxy-1-phenyl-ethyl)-(1*R*)-[1*α*,2*β*,3*β*,4*α*,5*β*]piperidine-2-carbonitrile

Andriamihamina Tsimilaza, Tony Tite, Sabrina Boutefnouchet,
Marie-Christine Lallemand,* François Tillequin and
Henri-Philippe Husson*

Tetrahedron: Asymmetry 18 (2007) 1585



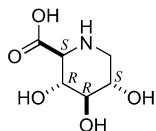
Hexahydro-4-phenyl-7,8,9-tribenzyloxy-(4*S*)-[1*a* β ,4 β ,9 α ,8 β ,7 α]-pyrido[2,1-*c*][1,4]oxazin-1-one

[α]_D = -29 (*c* 0.02, CHCl₃).

Source of chirality: (*R*)-(−)-phenylglycinol and isopropylidene- α -D-glucofuranose

Andriamihamina Tsimilaza, Tony Tite, Sabrina Boutefnouchet,
Marie-Christine Lallemand,* François Tillequin and
Henri-Philippe Husson*

Tetrahedron: Asymmetry 18 (2007) 1585



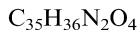
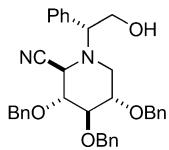
(2*S*,3*R*,4*R*,5*S*)-Trihydroxy-pipecolic acid

[α]_D = +18 (*c* 0.01, H₂O)

Source of chirality: (*R*)-(−)-phenylglycinol and isopropylidene- α -D-glucofuranose

Andriamihamina Tsimilaza, Tony Tite, Sabrina Boutefnouchet,
Marie-Christine Lallemand,* François Tillequin and
Henri-Philippe Husson*

Tetrahedron: Asymmetry 18 (2007) 1585



3,4,5-Tribenzyloxy-1-(2-hydroxy-1-phenyl-ethyl)-(1*R*)-[1*a*,2 β ,3 α ,4 β ,5 α]piperidine-2-carbonitrile

[α]_D = -5 (*c* 0.2, CHCl₃)

Source of chirality: (*R*)-(−)-phenylglycinol and isopropylidene- α -D-glucofuranose

Zobida Elkhayat, Imad Safir, Mohamed Dakir and Siméon Arseniyadis*

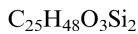
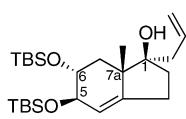
Tetrahedron: Asymmetry 18 (2007) 1589

Ee = 97%

[α]_D²⁰ = -96 (*c* 1.5, CHCl₃)

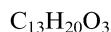
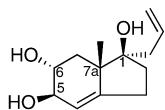
Source of chirality: (*S*)-(−)-proline

Absolute configuration: (1*R*,5*S*,6*R*,7*a**S*)

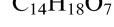
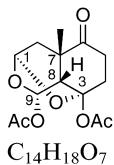


1-Allyl-5,6-bis(tert-butyldimethylsilyloxy)-7a-methyl-2,3,5,6,7,7a-hexahydro-1*H*-inden-1-ol

Ee = 97%

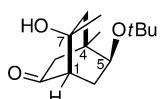
 $[\alpha]_D^{20} = -78$ (*c* 1.2, CHCl₃)Source of chirality: (*S*)-(-)-prolineAbsolute configuration: (1*R*,5*S*,6*R*,7*a**S*)1-Allyl-7a-methyl-2,3,5,6,7,7a-hexahydro-1*H*-indene-1,5,6-triol

Ee = 97%

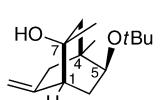
 $[\alpha]_D^{20} = +17$ (*c* 1.3, CHCl₃)Source of chirality: (*S*)-(-)-prolineAbsolute configuration: (1*R*,3*R*,7*S*,8*S*,9*S*)

Acetic acid-9-acetoxy-7-methyl-6-oxo-2,10-dioxa-tricyclo[5.3.1.0^3.8]undec-3-yl ester

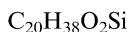
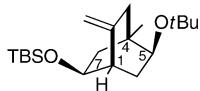
Ee = 97%

 $[\alpha]_D^{20} = +52$ (*c* 0.6, CHCl₃)Source of chirality: (*S*)-(-)-prolineAbsolute configuration: (1*S*,4*R*,5*S*,7*S*)5-*tert*-Butoxy-7-hydroxy-4,7-dimethylbicyclo[2.2.2]octan-2-one

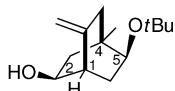
Ee = 97%

 $[\alpha]_D^{20} = +72$ (*c* 1.0, CHCl₃)Source of chirality: (*S*)-(-)-prolineAbsolute configuration: (1*R*,4*S*,5*S*,7*S*)5-*tert*-Butoxy-4,7-dimethyl-2-methylenebicyclo[2.2.2]octan-7-ol

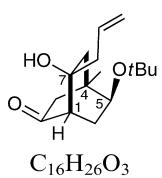
Ee = 97%

 $[\alpha]_D^{20} = +49$ (*c* 0.6, CHCl₃)Source of chirality: (*S*)(*-*)-prolineAbsolute configuration: (1*S*,4*R*,5*S*,7*S*)5-*tert*-Butoxy-4-methyl-2-methylenebicyclo[2.2.2]octan-7-yloxy(*tert*-butyl)dimethylsilane

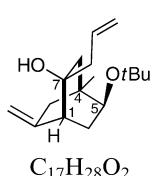
Ee = 97%

 $[\alpha]_D^{20} = +48$ (*c* 0.9, CHCl₃)Source of chirality: (*S*)(*-*)-prolineAbsolute configuration: (1*S*,2*S*,4*R*,5*S*)5-*tert*-Butoxy-4-methyl-7-methylenebicyclo[2.2.2]octan-2-ol

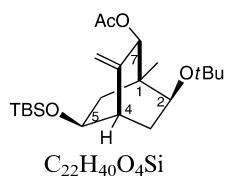
Ee = 97%

 $[\alpha]_D^{20} = +66$ (*c* 1.0, CHCl₃)Source of chirality: (*S*)(*-*)-prolineAbsolute configuration: (1*S*,4*R*,5*S*,7*S*)7-Allyl-5-*tert*-butoxy-7-hydroxy-4-methylbicyclo[2.2.2]octan-2-one

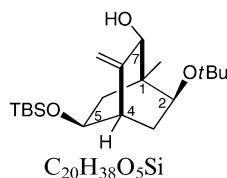
Ee = 97%

 $[\alpha]_D^{20} = +79$ (*c* 1.0, CHCl₃)Source of chirality: (*S*)(*-*)-prolineAbsolute configuration: (1*R*,4*S*,5*S*,7*S*)7-Allyl-5-*tert*-butoxy-4-methyl-2-methylenebicyclo[2.2.2]octan-7-ol

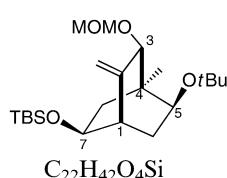
Ee = 97%

 $[\alpha]_D^{20} = +83$ (*c* 1.5, CHCl₃)Source of chirality: (*S*)-(-)-prolineAbsolute configuration: (1*R*,2*S*,4*S*,5*S*,7*R*)2-*tert*-Butoxy-5-(*tert*-butyldimethylsilyloxy)-1-methyl-8-methylenecyclo[2.2.2]octan-7-yl ethanoate

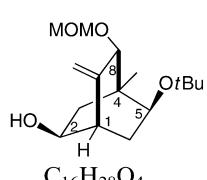
Ee = 97%

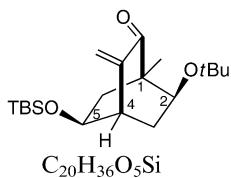
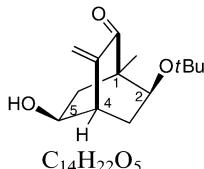
 $[\alpha]_D^{20} = -16$ (*c* 1.3, CHCl₃)Source of chirality: (*S*)-(-)-prolineAbsolute configuration: (1*S*,2*S*,4*S*,5*S*,7*R*)2-*tert*-Butoxy-5-(*tert*-butyldimethylsilyloxy)-1-methyl-8-methylenecyclo[2.2.2]octan-7-ol

Ee = 97%

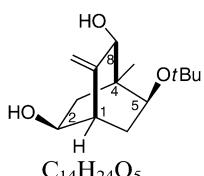
 $[\alpha]_D^{20} = +23$ (*c* 1.6, CHCl₃)Source of chirality: (*S*)-(-)-prolineAbsolute configuration: (1*S*,3*R*,4*R*,5*S*,7*S*)(5-*tert*-Butoxy-3-(methoxymethoxy)-4-methyl-2-methylenecyclo[2.2.2]octan-7-yloxy)(*tert*-butyl)dimethylsilane

Ee = 97%

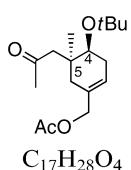
 $[\alpha]_D^{20} = +11$ (*c* 0.9, CHCl₃)Source of chirality: (*S*)-(-)-prolineAbsolute configuration: (1*S*,2*S*,4*R*,5*S*,8*R*)5-*tert*-Butoxy-8-(methoxymethoxy)-4-methyl-7-methylenecyclo[2.2.2]octan-2-ol

 $[\alpha]_D^{20} = -12$ (*c* 0.8, CHCl₃)Source of chirality: (*S*)(−)-prolineAbsolute configuration: (1*R*,2*S*,4*S*,5*S*)2-*tert*-Butoxy-5-(*tert*-butyldimethylsilyloxy)-1-methyl-8-methylenebicyclo[2.2.2]octan-7-one2-*tert*-Butoxy-5-hydroxy-1-methyl-8-methylenebicyclo[2.2.2]octan-7-one

Ee = 97%

 $[\alpha]_D^{20} = +5$ (*c* 0.5, CHCl₃)Source of chirality: (*S*)(−)-prolineAbsolute configuration: (1*R*,2*S*,4*S*,5*S*)5-*tert*-Butoxy-4-methyl-7-methylenebicyclo[2.2.2]octane-2,8-diol

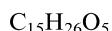
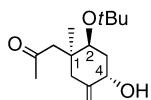
Ee = 97%

 $[\alpha]_D^{20} = +10$ (*c* 0.7, CHCl₃)Source of chirality: (*S*)(−)-prolineAbsolute configuration: (1*S*,2*S*,4*S*,5*S*,8*R*)(4-*tert*-Butoxy-5-methyl-5-(2-oxopropyl)cyclohex-1-enyl)methyl ethanoate

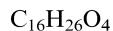
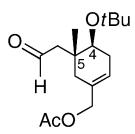
Ee = 97%

 $[\alpha]_D^{20} = +46$ (*c* 1.6, CHCl₃)Source of chirality: (*S*)(−)-prolineAbsolute configuration: (4*S*,5*S*)

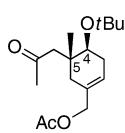
Ee = 97%

 $[\alpha]_D^{20} = -7$ (*c* 0.9, CHCl₃)Source of chirality: (*S*)-(-)-prolineAbsolute configuration: (1*S*,2*S*,4*S*)(1-2-*tert*-Butoxy-4-hydroxy-1-methyl-5-methylenecyclohexyl)propan-2-one

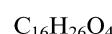
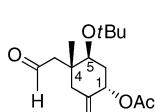
Ee = 97%

 $[\alpha]_D^{20} = +55$ (*c* 1.3, CHCl₃)Source of chirality: (*S*)-(-)-prolineAbsolute configuration: (4*S*,5*R*)(4-*tert*-Butoxy-5-methyl-5-(2-oxoethyl)cyclohex-1-enyl)methyl ethanoate

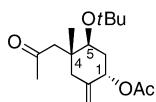
Ee = 97%

 $[\alpha]_D^{20} = +38$ (*c* 1.1, CHCl₃)Source of chirality: (*S*)-(-)-prolineAbsolute configuration: (4*S*,5*R*)(4-*tert*-Butoxy-5-methyl-5-(2-oxopropyl)cyclohex-1-enyl)methyl ethanoate

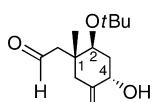
Ee = 97%

 $[\alpha]_D^{20} = +30$ (*c* 1.5, CHCl₃)Source of chirality: (*S*)-(-)-prolineAbsolute configuration: (1*S*,4*R*,5*S*)5-*tert*-Butoxy-4-methyl-2-methylene-4-(2-oxoethyl)cyclohexyl ethanoate

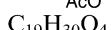
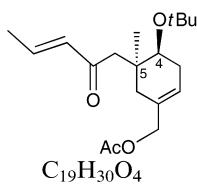
Ee = 97%

 $[\alpha]_D^{20} = +82$ (*c* 0.7, CHCl₃)Source of chirality: (*S*)(-)-prolineAbsolute configuration: (1*S*,4*R*,5*S*)5-*tert*-Butoxy-4-methylene-2-methylcyclohexyl ethanoate

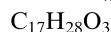
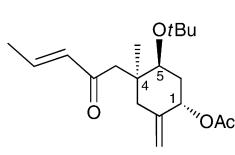
Ee = 97%

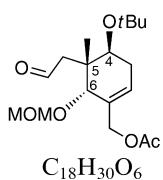
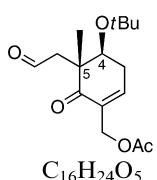
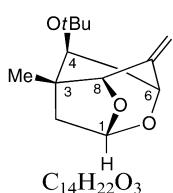
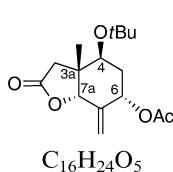
 $[\alpha]_D^{20} = +46$ (*c* 1.8, CHCl₃)Source of chirality: (*S*)(-)-prolineAbsolute configuration: (1*R*,2*S*,4*S*)2-(2-*tert*-Butoxy-4-hydroxy-1-methyl-5-methylenecyclohexyl)ethanal

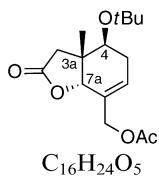
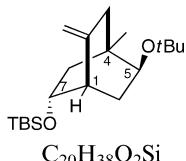
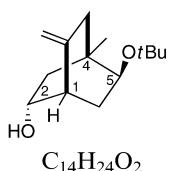
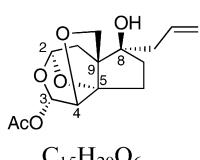
Ee = 97%

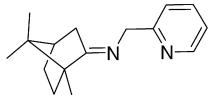
 $[\alpha]_D^{20} = +46$ (*c* 0.3, CHCl₃)Source of chirality: (*S*)(-)-prolineAbsolute configuration: (4*S*,5*S*)(4-*tert*-Butoxy-5-methyl-5-((*E*)-2-oxopent-3-enyl)cyclohex-1-enyl)methyl ethanoate

Ee = 97%

 $[\alpha]_D^{20} = +19$ (*c* 0.4, CHCl₃)Source of chirality: (*S*)(-)-prolineAbsolute configuration: (1*S*,4*S*,5*S*)5-*tert*-Butoxy-4-methylene-2-methylcyclohexyl ethanoate

(4-*tert*-Butoxy-6-(methoxymethoxy)-5-methyl-5-(2-oxoethyl)cyclohex-1-enyl)methyl ethanoate $Ee = 97\%$ $[\alpha]_D^{20} = +55 (c \ 1.3, \ CHCl_3)$ Source of chirality: (*S*)-(−)-prolineAbsolute configuration: (4*S*,5*R*,6*S*)(4-*tert*-Butoxy-5-methyl-6-oxo-5-(2-oxoethyl)cyclohex-1-enyl)methyl ethanoate $Ee = 97\%$ $[\alpha]_D^{20} = +15 (c \ 1.1, \ CHCl_3)$ Source of chirality: (*S*)-(−)-prolineAbsolute configuration: (4*S*,5*R*)4-*tert*-Butoxy-3-methyl-7-methylene-9,10-dioxa-tricyclo[4.3.1.0^3,8]decane $Ee = 97\%$ $[\alpha]_D^{20} = -27 (c \ 0.5, \ CHCl_3)$ Source of chirality: (*S*)-(−)-prolineAbsolute configuration: (1*S*,3*S*,4*S*,6*R*,8*R*)4-*tert*-Butoxy-3a-methyl-7-methylene-2-oxooctahydrobenzofuran-6-yl ethanoate $Ee = 97\%$ $[\alpha]_D^{20} = -32 (c \ 0.5, \ CHCl_3)$ Source of chirality: (*S*)-(−)-prolineAbsolute configuration: (3a*R*,4*S*,6*S*,7a*S*)

(4-*tert*-Butoxy-3a-methyl-2-oxo-2,3,3a,4,5,7a-hexahydrobenzofuran-7-yl)methyl ethanoate $Ee = 97\%$ $[\alpha]_D^{20} = -40$ (*c* 1.2, CHCl₃)Source of chirality: (*S*)(*–*)-prolineAbsolute configuration: (3a*R*,4*S*,7a*S*)(5-*tert*-Butoxy-4-methyl-2-methylenebicyclo[2.2.2]octan-7-yloxy)(*tert*-butyl)dimethylsilane $Ee = 97\%$ $[\alpha]_D^{20} = +12$ (*c* 1.2, CHCl₃)Source of chirality: (*S*)(*–*)-prolineAbsolute configuration: (1*S*,4*R*,5*S*,7*R*)5-*tert*-Butoxy-4-methyl-7-methylenebicyclo[2.2.2]octan-2-ol $Ee = 97\%$ $[\alpha]_D^{20} = +42$ (*c* 1.1, CHCl₃)Source of chirality: (*S*)(*–*)-prolineAbsolute configuration: (1*S*,2*R*,4*R*,5*S*) $Ee = 70\%$ $[\alpha]_D^{20} = -30$ (*c* 0.7, CHCl₃)Source of chirality: (*S*)(*–*)-prolineAbsolute configuration: (2*S*,3*S*,4*R*,5*S*,8*R*,9*S*)



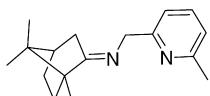
$[\alpha]_D^{25} = -24.2$ (*c* 0.91, CHCl₃)

Source of chirality: (1*R*)-(+)camphor

Absolute configuration: (1*R*,4*R*)

C₁₆H₂₂N₂

(*E*)-*N*-((1*R*,4*R*)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-ylidene)(pyridin-2-yl)methanamine



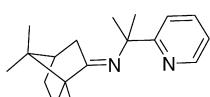
$[\alpha]_D^{25} = -23.9$ (*c* 0.92, CHCl₃)

Source of chirality: (1*R*)-(+)camphor

Absolute configuration: (1*R*,4*R*)

C₁₇H₂₄N₂

(*E*)-*N*-((1*R*,4*R*)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-ylidene)(6-methylpyridin-2-yl)methanamine



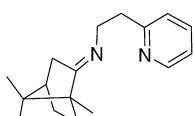
$[\alpha]_D^{25} = -5.6$ (*c* 0.99, CHCl₃)

Source of chirality: (1*R*)-(+)camphor

Absolute configuration: (1*R*,4*R*)

C₁₈H₂₆N₂

(*E*)-*N*-((1*R*,4*R*)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-ylidene)-2-(pyridin-2-yl)propan-2-amine



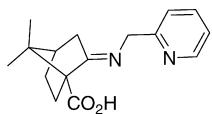
$[\alpha]_D^{25} = -28.4$ (*c* 1.01, CHCl₃)

Source of chirality: (1*R*)-(+)camphor

Absolute configuration: (1*R*,4*R*)

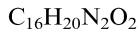
C₁₇H₂₄N₂

(*E*)-*N*-((1*R*,4*R*)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-ylidene)-2-(pyridin-2-yl)ethanamine

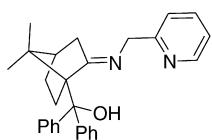


$[\alpha]_D^{25} = +64.8$ (*c* 1.11, CHCl₃)

Source of chirality: (1*S*)-(+)ketopinic acid



(*E*)-2-((Pyridin-2-yl)methylimino)-7,7-dimethylbicyclo[2.2.1]heptane-1-carboxylic acid



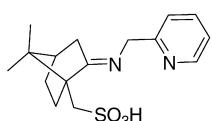
$[\alpha]_D^{25} = +163.7$ (*c* 0.97, CHCl₃)

Source of chirality: (1*S*)-(+)ketopinic acid

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



((*E,1S,4R*)-2-((Pyridin-2-yl)methylimino)-7,7-dimethylbicyclo[2.2.1]heptan-1-yl)diphenylmethanol

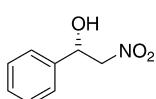


$[\alpha]_D^{25} = -39.6$ (*c* 1.03, CHCl₃)

Source of chirality: (1*S*)-(+)camphorsulfonic acid



((*E*)-2-((Pyridin-2-yl)methylimino)-7,7-dimethylbicyclo[2.2.1]heptan-1-yl)methanesulfonic acid



Ee 72%

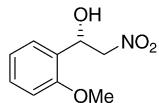
$[\alpha]_D^{25} = +33.7$ (*c* 1.05, CH₂Cl₂)

Source of chirality: enantioselective Henry reaction

Absolute configuration: (*S*)



(*S*)-(+)-2-Nitro-1-phenylethanol



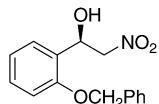
Ee 85%

$[\alpha]_D^{25} = +39.8$ (*c* 1.05, CH₂Cl₂)

Source of chirality: enantioselective Henry reaction

Absolute configuration: (S)

C₉H₁₁NO₄
(S)-(+)-1-(2-Methoxyphenyl)-2-nitroethanol



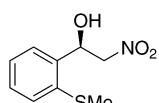
Ee 83%

$[\alpha]_D^{25} = -33.8$ (*c* 1.10, CH₂Cl₂)

Source of chirality: enantioselective Henry reaction

Absolute configuration: (R)

C₁₅H₁₅NO₄
(R)-(-)-1-(2-Benzylxyloxyphenyl)-2-nitroethanol



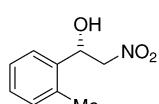
Ee 83%

$[\alpha]_D^{25} = -62.6$ (*c* 1.09, CH₂Cl₂)

Source of chirality: enantioselective Henry reaction

Absolute configuration: (R)

C₉H₁₁NO₃S
(R)-(-)-1-(2-Methylthiophenyl)-2-nitroethanol



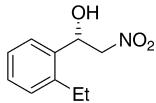
Ee 82%

$[\alpha]_D^{25} = +41.7$ (*c* 1.07, CH₂Cl₂)

Source of chirality: enantioselective Henry reaction

Absolute configuration: (S)

C₉H₁₁NO₃
(S)-(+)-1-(2-Methylphenyl)-2-nitroethanol



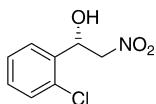
C₁₀H₁₃NO₃
(S)-(+)-1-(2-Ethylphenyl)-2-nitroethanol

Ee 84%

[α]_D²⁵ = +33.6 (c 0.96, CH₂Cl₂)

Source of chirality: Enantioselective Henry reaction

Absolute configuration: (S)



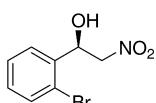
C₈H₈ClNO₃
(S)-(+)-1-(2-Chlorophenyl)-2-nitroethanol

Ee 65%

[α]_D²⁵ = +40.3 (c 1.10, CH₂Cl₂)

Source of chirality: enantioselective Henry reaction

Absolute configuration: (S)



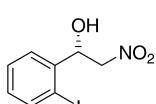
C₈H₈BrNO₃
(R)-(-)-1-(2-Bromophenyl)-2-nitroethanol

Ee 78%

[α]_D²⁵ = -29.2 (c 1.06, CH₂Cl₂)

Source of chirality: enantioselective Henry reaction

Absolute configuration: (R)



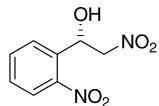
C₈H₈BrNO₃
(S)-(+)-1-(2-Iodophenyl)-2-nitroethanol

Ee 71%

[α]_D²⁵ = +24.2 (c 1.08, CH₂Cl₂)

Source of chirality: enantioselective Henry reaction

Absolute configuration: (S)



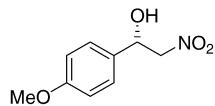
C₈H₈N₂O₅
(S)-(-)-2-Nitro-1-(2-nitrophenyl)ethanol

Ee 27%

[α]_D²⁵ = -50.3 (c 0.38, CH₂Cl₂)

Source of chirality: enantioselective Henry reaction

Absolute configuration: (S)



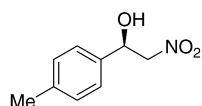
C₉H₁₁NO₄
(S)-(+)-1-(4-Methoxyphenyl)-2-nitroethanol

Ee 78%

[α]_D²⁵ = +32.3 (c 1.05, CH₂Cl₂)

Source of chirality: enantioselective Henry reaction

Absolute configuration: (S)



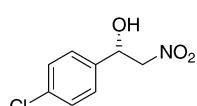
C₉H₁₁NO₃
(R)-(-)-1-(4-Methylphenyl)-2-nitroethanol

Ee 81%

[α]_D²⁵ = -37.2 (c 1.14, CH₂Cl₂)

Source of chirality: enantioselective Henry reaction

Absolute configuration: (R)



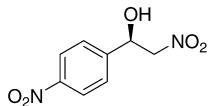
C₈H₈ClNO₃
(S)-(+)-1-(4-Chlorophenyl)-2-nitroethanol

Ee 56%

[α]_D²⁵ = +24.7 (c 1.13, CH₂Cl₂)

Source of chirality: enantioselective Henry reaction

Absolute configuration: (S)



C₈H₈N₂O₅
(*R*)-(-)-2-Nitro-1-(4-nitrophenyl)ethanol

Ee 27%

[α]_D²⁵ = -10.0 (*c* 1.06, CH₂Cl₂)

Source of chirality: enantioselective Henry reaction

Absolute configuration: (*R*)



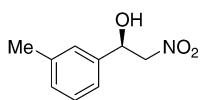
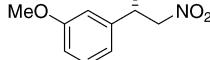
C₉H₁₁NO₄
(*S*)-(+)-1-(3-Methoxyphenyl)-2-nitroethanol

Ee 76%

[α]_D²⁵ = +26.6 (*c* 0.97, CH₂Cl₂)

Source of chirality: enantioselective Henry reaction

Absolute configuration: (*S*)



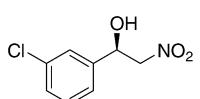
C₉H₁₁NO₃
(*R*)-(-)-1-(3-Chlorophenyl)-2-nitroethanol

Ee 72%

[α]_D²⁵ = -36.8 (*c* 1.09, CH₂Cl₂)

Source of chirality: enantioselective Henry reaction

Absolute configuration: (*R*)



C₈H₈ClNO₃
(*R*)-(-)-1-(3-Chlorophenyl)-2-nitroethanol

Ee 63%

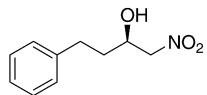
[α]_D²⁵ = -27.2 (*c* 1.05, CH₂Cl₂)

Source of chirality: enantioselective Henry reaction

Absolute configuration: (*R*)

Gonzalo Blay, Estela Climent, Isabel Fernández,
Victor Hernández-Olmos and José R. Pedro*

Tetrahedron: Asymmetry 18 (2007) 1603



C₁₀H₁₃NO₃
(R)-(+)-1-Nitro-4-phenyl-2-butanol

Ee 74%

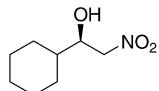
[α]_D²⁵ = +13.1 (*c* 0.51, CH₂Cl₂)

Source of chirality: enantioselective Henry reaction

Absolute configuration: (R)

Gonzalo Blay, Estela Climent, Isabel Fernández,
Victor Hernández-Olmos and José R. Pedro*

Tetrahedron: Asymmetry 18 (2007) 1603



C₁₀H₁₃NO₃
(R)-(-)-1-Cyclohexyl-2-nitroethanol

Ee 73%

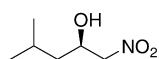
[α]_D²⁵ = -14.7 (*c* 1.03, CHCl₃)

Source of chirality: enantioselective Henry reaction

Absolute configuration: (R)

Gonzalo Blay, Estela Climent, Isabel Fernández,
Victor Hernández-Olmos and José R. Pedro*

Tetrahedron: Asymmetry 18 (2007) 1603



C₆H₁₃NO₃
(R)-(+)-4-Methyl-1-nitro-2-pentanol

Ee 79%

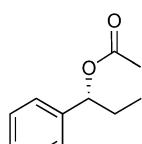
[α]_D²⁵ = +1.4 (*c* 1.01, CH₂Cl₂)

Source of chirality: enantioselective Henry reaction

Absolute configuration: (R)

Prabhakar Bachu, Jennifer S. Gibson, Jonathan Sperry and
Margaret A. Brimble*

Tetrahedron: Asymmetry 18 (2007) 1618



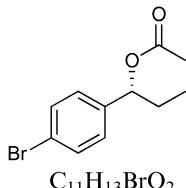
C₁₁H₁₄O₂
(R)-1-Phenyl-1-propyl acetate

Ee = 99%

[α]_D²⁰ = +98.2 (*c* 1.30, CHCl₃)

Source of chirality: enzyme-mediated kinetic resolution

Configuration predicted: (R)



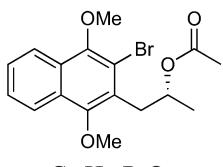
(*R*)-1-(4-Bromophenyl)-1-propyl acetate

Ee = 99%

$[\alpha]_D^{20} = +85.0$ (*c* 0.50, CHCl₃)

Source of chirality: enzyme-mediated kinetic resolution

Configuration predicted: (*R*)



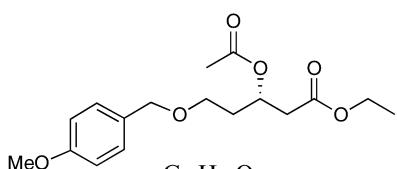
(*R*)-3-Bromo-2-(2-acetoxypropyl)-1,4-dimethoxynaphthalene

Ee = 99%

$[\alpha]_D^{20} = +17.8$ (*c* 0.17, CHCl₃)

Source of chirality: enzyme-mediated kinetic resolution

Configuration predicted: (*R*)



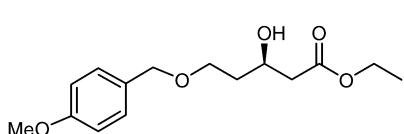
(*S*)-Ethyl-5-(4-methoxybenzyloxy)-3-acetoxypentanoate

Ee = 99%

$[\alpha]_D^{20} = +6.0$ (*c* 5.08, CHCl₃)

Source of chirality: enzyme-mediated kinetic resolution

Configuration predicted: (*S*)



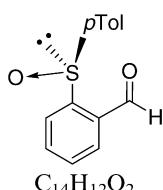
(*R*)-Ethyl-5-(4-methoxybenzyloxy)-3-hydroxypentanoate

Ee = 43%

$[\alpha]_D^{20} = +4.5$ (*c* 3.44, CHCl₃)

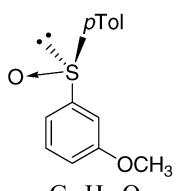
Source of chirality: enzyme-mediated kinetic resolution

Configuration predicted: (*R*)



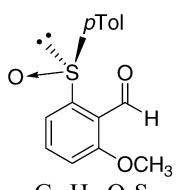
(S)-2-(*p*-Tolylsulfinyl)benzaldehyde

$[\alpha]_D^{20} = -278$ (*c* 1, acetone)



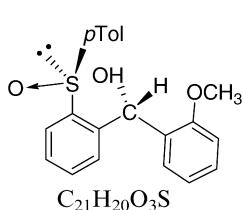
(S)-1-Methoxy-3-(*p*-tolylsulfinyl)benzene

$[\alpha]_D^{20} = +49.8$ (*c* 1, acetone)



(S)-2-Methoxy-6-(*p*-tolylsulfinyl)benzaldehyde

$[\alpha]_D^{20} = -368$ (*c* 1, acetone)

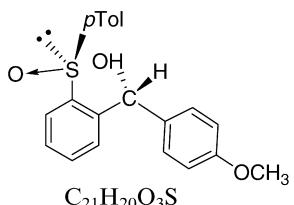


(*R*)-(2-Methoxyphenyl)(2-((*S*)-*p*-tolylsulfinyl)phenyl)methanol

$[\alpha]_D^{20} = -127.6$ (*c* 0.5, CHCl₃)

Source of chirality: enantiomerically pure sulfoxide as inductor

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

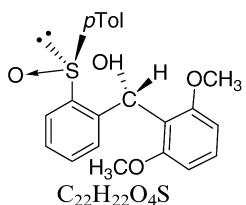


(*R*)-(4-Methoxyphenyl)(2-((*S*)-*p*-tolylsulfinyl)phenyl)methanol

$[\alpha]_D^{20} = -108$ (*c* 0.3, CHCl₃)

Source of chirality: enantiomerically pure sulfoxide as inductor

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

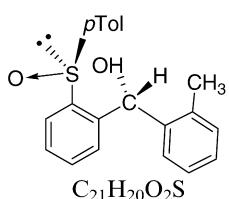


(*R*)-(2,6-Dimethoxyphenyl)(2-((*S*)-*p*-tolylsulfinyl)phenyl)methanol

$[\alpha]_D^{20} = -128$ (*c* 0.3, CHCl₃)

Source of chirality: enantiomerically pure sulfoxide as inductor

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

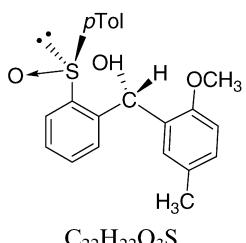


(*R*)-*o*-Tolyl(2-((*S*)-*p*-tolylsulfinyl)phenyl)methanol

$[\alpha]_D^{20} = -216$ (*c* 0.5, CHCl₃)

Source of chirality: enantiomerically pure sulfoxide as inductor

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

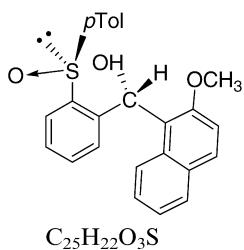


(*R*)-(2-Methoxy-5-methylphenyl)(2-((*S*)-*p*-tolylsulfinyl)phenyl)methanol

$[\alpha]_D^{20} = -59.6$ (*c* 0.5, CHCl₃)

Source of chirality: enantiomerically pure sulfoxide as inductor

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

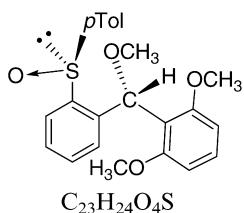


(*R*)-(2-Methoxynaphthalen-1-yl)(2-((*S*)-*p*-tolylsulfinyl)phenyl)methanol

$[\alpha]_D^{20} = +5.2$ (*c* 0.5, CHCl₃)

Source of chirality: enantiomerically pure sulfoxide as inductor

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

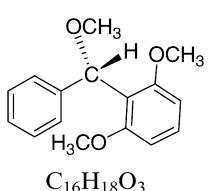


1,3-Dimethoxy-2-((*R*)-methoxy(2-((*S*)-*p*-tolylsulfinyl)phenyl)methyl)benzene

$[\alpha]_D^{20} = -316$ (*c* 0.5, CHCl₃)

Source of chirality: enantiomerically pure sulfoxide as inductor

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

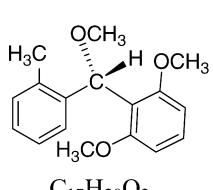


(*S*)-1,3-Dimethoxy-2-(methoxy(phenyl)methyl)benzene

$[\alpha]_D^{20} = -107.5$ (*c* 1, CHCl₃)

Source of chirality: enantiomerically pure sulfoxide as inductor

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



(*S*)-1,3-Dimethoxy-2-(methoxy(phenyl)methyl)benzene

$[\alpha]_D^{20} = -116.7$ (*c* 0.8, CHCl₃)

Source of chirality: enantiomerically pure sulfoxide as inductor

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