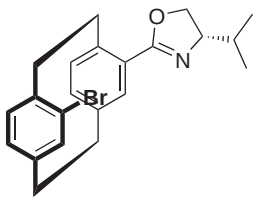
Xun-Wei Wu, Xue-Long Hou,* Li-Xin Dai, Ju Tao, Bo-Xun Cao and Jie Sun

Tetrahedron: Asymmetry *12 (2001) 529*

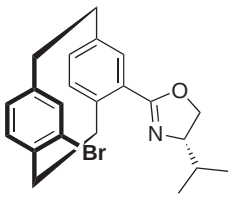


$[\alpha]_D^{20} = -96.9$ ($c = 0.715$, $CHCl_3$)
Source of chirality: (*S*)-valinol
Absolute configuration: ($19S,4R_p,13S_p$)

$C_{22}H_{24}BrNO$
($19S,4R_p,13S_p$)-4-Bromo-13-(4-isopropyloxazoline-2-yl)[2,2]paracyclophane

Xun-Wei Wu, Xue-Long Hou,* Li-Xin Dai, Ju Tao, Bo-Xun Cao and Jie Sun

Tetrahedron: Asymmetry *12 (2001) 529*

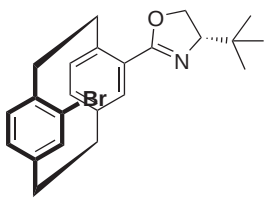


$[\alpha]_D^{20} = -3.4$ ($c = 0.660$, $CHCl_3$)
Source of chirality: (*S*)-valinol
Absolute configuration: ($19S,4S_p,13R_p$)

$C_{22}H_{24}BrNO$
($19S,4S_p,13R_p$)-4-Bromo-13-(4-isopropyloxazoline-2-yl)[2,2]paracyclophane

Xun-Wei Wu, Xue-Long Hou,* Li-Xin Dai, Ju Tao, Bo-Xun Cao and Jie Sun

Tetrahedron: Asymmetry *12 (2001) 529*

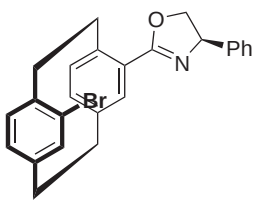


$[\alpha]_D^{20} = -117.7$ ($c = 0.740$, $CHCl_3$)
Source of chirality: (*S*)-*tert*-leucinol
Absolute configuration: ($19S,4R_p,13S_p$)

$C_{23}H_{26}BrNO$
($19S,4R_p,13S_p$)-4-Bromo-13-(4-*tert*-butyloxazoline-2-yl)[2,2]paracyclophane

Xun-Wei Wu, Xue-Long Hou,* Li-Xin Dai, Ju Tao, Bo-Xun Cao and Jie Sun

Tetrahedron: Asymmetry *12 (2001) 529*

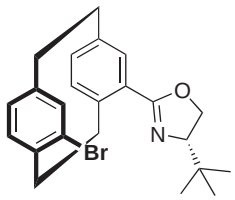


$[\alpha]_D^{20} = -10.0$ ($c = 0.750$, $CHCl_3$)
Source of chirality: (*R*)-phenylglycinol
Absolute configuration: ($19R,4R_p,13S_p$)

$C_{25}H_{22}BrNO$
($19R,4R_p,13S_p$)-4-Bromo-13-(4-phenyloxazoline-2-yl)[2,2]paracyclophane

Xun-Wei Wu, Xue-Long Hou,* Li-Xin Dai, Ju Tao, Bo-Xun Cao and Jie Sun

Tetrahedron: Asymmetry *12 (2001) 529*



$[\alpha]_D^{20} = -4.5$ ($c = 0.760$, $CHCl_3$)
Source of chirality: (*S*)-*tert*-leucinol
Absolute configuration: ($19S,4S_p,13R_p$)

$C_{23}H_{26}BrNO$
($19S,4S_p,13R_p$)-4-Bromo-13-(4-*tert*-butyloxazoline-2-yl)[2,2]paracyclophane

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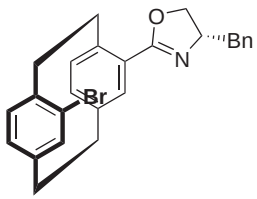
Xun-Wei Wu, Xue-Long Hou,* Li-Xin Dai, Ju Tao, Bo-Xun Cao and Jie Sun

Tetrahedron: Asymmetry *12 (2001) 529*



$[\alpha]_D^{20} = -54.0$ ($c = 0.850$, $CHCl_3$)
Source of chirality: (*S*)-phenylaniol
Absolute configuration: ($19S,4R_p,13S_p$)

$C_{26}H_{24}BrNO$
($19S,4R_p,13S_p$)-4-Bromo-13-(4-benzyloxazoline-2-yl)[2,2]paracyclophane

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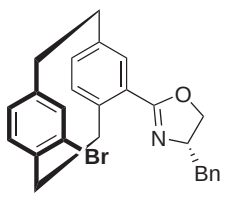
Xun-Wei Wu, Xue-Long Hou,* Li-Xin Dai, Ju Tao, Bo-Xun Cao and Jie Sun

Tetrahedron: Asymmetry *12 (2001) 529*



$[\alpha]_D^{20} = +40.2$ ($c = 0.545$, $CHCl_3$)
Source of chirality: (*S*)-phenylaniol
Absolute configuration: ($19S,4S_p,13R_p$)

$C_{26}H_{24}BrNO$
($19S,4S_p,13R_p$)-4-Bromo-13-(4-benzyloxazoline-2-yl)[2,2]paracyclophane

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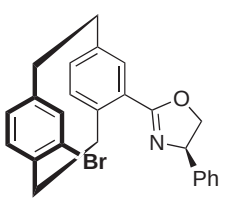
Xun-Wei Wu, Xue-Long Hou,* Li-Xin Dai, Ju Tao, Bo-Xun Cao and Jie Sun

Tetrahedron: Asymmetry *12 (2001) 529*

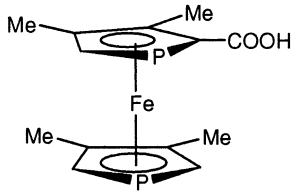


$[\alpha]_D^{20} = +39.9$ ($c = 0.840$, $CHCl_3$)
Source of chirality: (*R*)-phenylglycinol
Absolute configuration: ($19R,4S_p,13R_p$)

$C_{25}H_{22}BrNO$
($19R,4S_p,13R_p$)-4-Bromo-13-(4-phenyloxazoline-2-yl)[2,2]paracyclophane

Arkadiusz Kłys, Janusz Zakrzewski,* Agnieszka Rybarczyk-Pirek and Tomasz A. Olszak

Tetrahedron: Asymmetry *12 (2001) 533*



$C_{13}H_{16}FeP_2O_2$

(*R*)-3,3′4,4′-Tetramethyl-1,1′-diphosphaferrocene-2-carboxylic acid

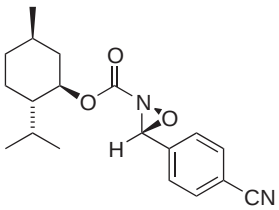
$[\alpha]_{546}^{20} = +23$ ($c = 1$, $CHCl_3$)

Source of chirality: optical resolution

Absolute configuration: *R*

Alan Armstrong,* Mark A. Atkin and Steven Swallow

Tetrahedron: Asymmetry *12 (2001) 535*



$C_{19}H_{25}N_2O_3$

(2*S*,3*R*)-3-(4-Cyanophenyl)oxaziridine-2-carboxylic acid (1*R*,2*S*,5*R*)-menthyl ester

Ee = 100% (from enantiomerically pure starting material); ca. 9:1 *trans*:*cis* at rt by ^1H NMR analysis

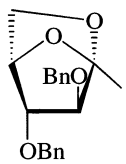
$[\alpha]_D^{25} = +39.5$ (c 1.0, $CHCl_3$)

Source of chirality: chiral pool/diastereoselective synthesis

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

G. V. M. Sharma,* A. Subhash Chander and Palakodety Radha Krishna

Tetrahedron: Asymmetry *12 (2001) 539*



$C_{20}H_{22}O_4$

5,6-Di(benzyloxy)-1-methyl-(1*S*,4*S*,5*R*,6*S*)-2,7-dioxabicyclo[2.2.1]heptane

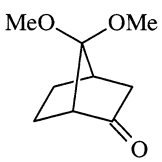
$[\alpha]_D = +30.3$ (c 0.95, $CHCl_3$)

Source of chirality: synthesis

Absolute configuration: (1*S*,4*S*,5*R*,6*S*)

Alexandre A. M. Lapis, Olyr C. Kreutz, Adriana R. Pohlmann and Valentim E. U. Costa*

Tetrahedron: Asymmetry *12 (2001) 557*



$C_9H_{14}O_3$

7,7-Dimethoxynorbornan-2-one

Ee>98% (by chiral GC)

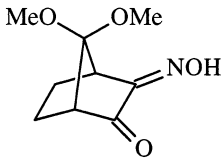
$[\alpha]_D^{20} = +55$ (c 1.88, ethyl acetate)

Source of chirality: enzyme catalysed transesterification of racemic mixture

Absolute configuration: unknown

Alexandre A. M. Lapis, Olyr C. Kreutz, Adriana R. Pohlmann and Valentim E. U. Costa*

Tetrahedron: Asymmetry *12 (2001) 557*



$C_9H_{14}NO_4$

3-Hydroxyimino-7,7-dimethoxynorbornan-2-one

Ee>98% (by chiral GC)

$[\alpha]_D^{20} = +53$ (*c* 1.00, ethyl acetate)

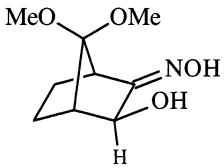
Ratio *E*/*Z* 80:20

Source of chirality: enzyme catalysed transesterification of racemic mixture

Absolute configuration: unknown

Alexandre A. M. Lapis, Olyr C. Kreutz, Adriana R. Pohlmann and Valentim E. U. Costa*

Tetrahedron: Asymmetry *12 (2001) 557*



$C_9H_{15}NO_4$

3-*exo*-Hydroxy-7,7-dimethoxynorbornan-2-one oxime

Ee>98% (by chiral GC)

$[\alpha]_D^{20} = +40$ (*c* 1.52, ethyl acetate)

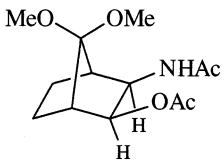
Ratio E/Z 60:40

Source of chirality: enzyme catalysed transesterification of racemic mixture

Absolute configuration: unknown

Alexandre A. M. Lapis, Olyr C. Kreutz, Adriana R. Pohlmann and Valentim E. U. Costa*

Tetrahedron: Asymmetry *12 (2001) 557*



$C_{13}H_{22}NO_5$

3-*exo*-Acetamido-7,7-dimethoxynorbornan-2-*exo*-yl acetate

Ee>98% (by chiral GC)

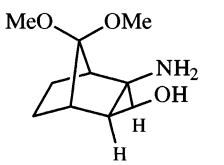
$[\alpha]_D^{20} = +14$ (*c* 1.04, ethyl acetate)

Source of chirality: enzyme catalysed transesterification of racemic mixture

Absolute configuration: unknown

Alexandre A. M. Lapis, Olyr C. Kreutz, Adriana R. Pohlmann and Valentim E. U. Costa*

Tetrahedron: Asymmetry *12 (2001) 557*



$C_9H_8NO_3$

3-*exo*-Amino-7,7-dimethoxynorbornan-2-*exo*-ol

Ee>98% (by chiral GC)

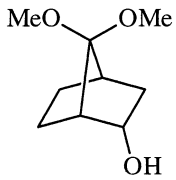
$[\alpha]_D^{20} = +26$ (*c* 1.04, ethyl acetate)

Source of chirality: enzyme catalysed transesterification of racemic mixture

Absolute configuration: unknown

Alexandre A. M. Lapis, Olyr C. Kreutz, Adriana R. Pohlmann and Valentim E. U. Costa*

Tetrahedron: Asymmetry *12 (2001) 557*



$C_9H_{16}O_3$

7,7-Dimethoxynorbornan-2-*endo*-ol

Ee >98% (by chiral GC)

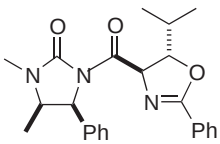
$[\alpha]_D^{20} = -1$ (*c* 3.07, ethyl acetate)

Source of chirality: enzyme catalysed transesterification of racemic mixture

Absolute configuration: unknown

Giuliana Cardillo,* Luca Gentilucci, Massimo Gianotti and Alessandra Tolomelli

Tetrahedron: Asymmetry *12 (2001) 563*



$C_{24}H_{27}N_3O_3$

(4*R*,5*S*,4′*S*,5′*R*)-4,5-Dihydro-2-phenyl-4-[(1′,5′-dimethyl-4′-phenylimidazolidin-2′-on-3′-yl)carbonyl]-5-isopropyl-oxazole

Ee >95%

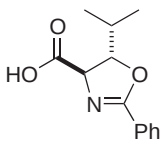
$[\alpha]_D^{20} = -4.8$ (*c* 1.3; $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Giuliana Cardillo,* Luca Gentilucci, Massimo Gianotti and Alessandra Tolomelli

Tetrahedron: Asymmetry *12 (2001) 563*



$C_{13}H_{15}NO_3$

(4*R*,5*S*)-5-Isopropyl-2-phenyl-4,5-dihydrooxazole-4-carboxylic acid

Ee >95%

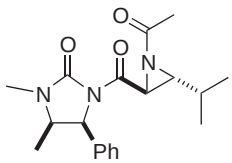
$[\alpha]_D^{20} = -4.5$ (*c* 1.2; $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Giuliana Cardillo,* Luca Gentilucci, Massimo Gianotti and Alessandra Tolomelli

Tetrahedron: Asymmetry *12 (2001) 563*



$C_{19}H_{25}N_3O_3$

(4*S*,5*R*,2′*S*,3′*R*)-1,5-Dimethyl-4-phenyl-3-[(2′-*N*-acetyl-aziridinyl-3′-isopropyl)carbonyl]-imidazolidin-2-one

Ee >95%

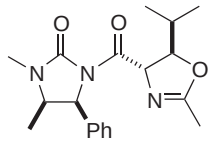
$[\alpha]_D^{20} = +143.6$ (*c* 1.4; $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Giuliana Cardillo,* Luca Gentilucci, Massimo Gianotti and Alessandra Tolomelli

Tetrahedron: Asymmetry *12 (2001) 563*



$C_{19}H_{25}N_3O_3$

(4*S*,5*R*,4′*S*,5′*R*)-4,5-Dihydro-2-methyl-4-[(1′,5′-dimethyl-4′-phenylimidazolidin-2′-on-3′-yl)carbonyl]-5-isopropyl-oxazole

Ee >95%

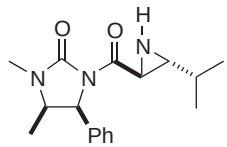
$[\alpha]_D^{20} = +275.6$ (*c* 0.9; $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Giuliana Cardillo,* Luca Gentilucci, Massimo Gianotti and Alessandra Tolomelli

Tetrahedron: Asymmetry *12 (2001) 563*



$C_{17}H_{23}N_3O_2$

(4*S*,5*R*,2′*S*,3′*R*)-1,5-Dimethyl-4-phenyl-3-[(2′-aziridinyl-3′-isopropyl)-carbonyl]-imidazolidin-2-one

Ee >95%

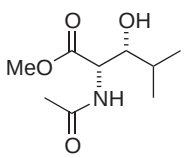
$[\alpha]_D^{20} = +79.7$ (*c* 1.0; $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Giuliana Cardillo,* Luca Gentilucci, Massimo Gianotti and Alessandra Tolomelli

Tetrahedron: Asymmetry *12 (2001) 563*



$C_9H_{17}NO_4$

(2*S*,3*R*)-*N*-Acetyl-hydroxyleucine methyl ester

Ee >95%

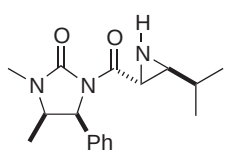
$[\alpha]_D^{20} = +16.9$ (*c* 0.4; $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Giuliana Cardillo,* Luca Gentilucci, Massimo Gianotti and Alessandra Tolomelli

Tetrahedron: Asymmetry *12 (2001) 563*



$C_{17}H_{23}N_3O_2$

(4*S*,5*R*,2′*R*,3′*S*)-1,5-Dimethyl-4-phenyl-3-[(2′-aziridinyl-3′-isopropyl)-carbonyl]-imidazolidin-2-one

Ee >95%

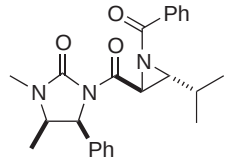
$[\alpha]_D^{20} = +78.6$ (*c* 0.6; $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Giuliana Cardillo,* Luca Gentilucci, Massimo Gianotti and Alessandra Tolomelli

Tetrahedron: Asymmetry *12 (2001) 563*



$C_{24}H_{27}N_3O_3$

(4*S*,5*R*,2′*S*,3′*R*)-1,5-Dimethyl-4-phenyl-3-[(2′-*N*-benzoyl-aziridinyl-3′-isopropyl)]carbonyl]-imidazolidin-2-one

Ee >95%

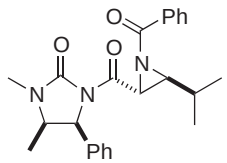
$[\alpha]_D^{20} = +178.0$ (*c* 1.5; $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Giuliana Cardillo,* Luca Gentilucci, Massimo Gianotti and Alessandra Tolomelli

Tetrahedron: Asymmetry *12 (2001) 563*



$C_{24}H_{27}N_3O_3$

(4*S*,5*R*,2′*R*,3′*S*)-1,5-Dimethyl-4-phenyl-3-[(2′-*N*-benzoyl-aziridinyl-3′-isopropyl)carbonyl]-imidazolidin-2-one

Ee >95%

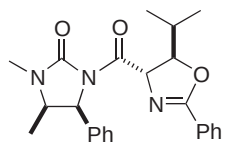
$[\alpha]_D^{20} = +106.8$ (*c* 1.0; $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Giuliana Cardillo,* Luca Gentilucci, Massimo Gianotti and Alessandra Tolomelli

Tetrahedron: Asymmetry *12 (2001) 563*



$C_{24}H_{27}N_3O_3$

(4*S*,5*R*,4′*S*,5′*R*)-4,5-Dihydro-2-phenyl-4-[(1′,5′-dimethyl-4′-phenylimidazolidin-2′-on-3′-yl)carbonyl]-5-isopropyl-oxazole

Ee >95%

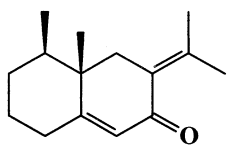
$[\alpha]_D^{20} = +137.5$ (*c* 0.4; $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Rossana A. Schenato, Éverton M. dos Santos, Beatriz S. M. Tenius,* Paulo R. R. Costa, Ignez Caracelli and Julio Zukerman-Schpector

Tetrahedron: Asymmetry *12 (2001) 579*



$C_{15}H_{22}O$

(4a*S*,5*R*)-4,4a,5,6,7,8-Hexahydro-3-(1-hydroxy-1-methylethyl)-4a,5-dimethylnaphthalen-2(3*H*)-one

Ee = 100%

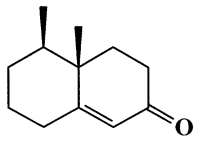
$[\alpha]_D^{20} = -169$ (*c* 1.05, $CHCl_3$)

Source of chirality: (*R*)-(+)-pulegone and (*S*)-(−)-phenylethylamine

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

Rossana A. Schenato, Éverton M. dos Santos, Beatriz S. M. Tenius,* Paulo R. R. Costa, Ignez Caracelli and Julio Zukerman-Schpector

Tetrahedron: Asymmetry *12 (2001) 579*



$C_{12}H_{18}O$

(−)-(4a*S*,5*R*)-4,4a,5,6,7,8-Hexahydro-4a,5-dimethyl-2(3*H*)-naphthalenone

Ee = 100% (by polarimetry)

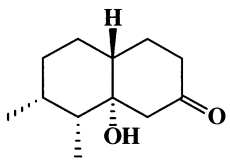
$[\alpha]_D^{20} = -185$ (*c* 1.63, CH_2Cl_2)

Source of chirality: (*R*)-(+)-pulegone and (*S*)-(−)-phenylethylamine

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

Rossana A. Schenato, Éverton M. dos Santos, Beatriz S. M. Tenius,* Paulo R. R. Costa, Ignez Caracelli and Julio Zukerman-Schpector

Tetrahedron: Asymmetry *12 (2001) 579*



$C_{12}H_{20}O_2$

(7*R*,8*S*)-7,8-Dimethyl-(8a*S*)-8a-hydroxy-3,4,4a*R*,5,6,7,8,8a-octahydronaphthalen-2(1*H*)-one

$[\alpha]_D^{20} = -5$ (*c* 0.18, CH_2Cl_2)

Source of chirality: (*R*)-(+)-pulegone and (*R*)-(+)-phenylethylamine

Absolute configuration: (4a*R*,7*R*,8*S*,8a*S*)

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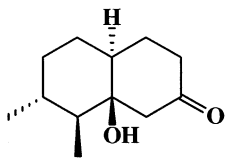
Tetrahedron: Asymmetry *12 (2001) 579*



$C_{12}H_{20}O_2$

(7*R*,8*S*)-7,8-Dimethyl-(8a*R*)-8a-hydroxy-3,4-(4a*S*),5,6,7,8,8a-octahydronaphthalen-2(1*H*)-one

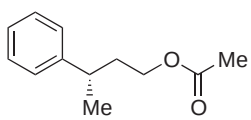
$[\alpha]_D^{20} = +5$ (*c* 2.0, CH_2Cl_2)

Source of chirality: (*R*)-(+)-pulegone, (*S*)- and (*R*)-(+)-phenylethylamine

Absolute configuration: (4a*S*,7*R*,8*S*,8a*R*)

Masashi Kawasaki,* Michimasa Goto, Shigeki Kawabata and Tadashi Kometani

Tetrahedron: Asymmetry *12 (2001) 585*



$C_{12}H_{16}O_2$

(*S*)-3-Phenyl-1-butyl acetate

Ee = 29%

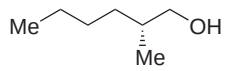
$[\alpha]_D^{22} = +15.9$ (*c* 2.13, benzene)

Source of chirality: lipase-catalysed resolution

Absolute configuration: *S*

Masashi Kawasaki,* Michimasa Goto, Shigeki Kawabata and Tadashi Kometani

Tetrahedron: Asymmetry *12 (2001) 585*



$C_7H_{16}O$

(*R*)-2-Methyl-1-hexanol

Ee = 96%

$[\alpha]_D^{21} = +12.8$ (*c* 1.51, $CHCl_3$)

Source of chirality: lipase-catalysed resolution

Absolute configuration: *R*

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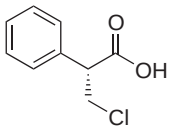
Tetrahedron: Asymmetry *12 (2001) 585*



$C_9H_9ClO_2$

(*R*)-3-Chloro-2-phenylpropanoic acid

Ee = 61%

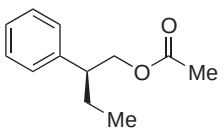
$[\alpha]_D^{19} = -45.1$ (*c* 1.13, EtOH)

Source of chirality: lipase-catalysed resolution

Absolute configuration: *R*

Masashi Kawasaki,* Michimasa Goto, Shigeki Kawabata and Tadashi Kometani

Tetrahedron: Asymmetry *12 (2001) 585*



$C_{12}H_{16}O_2$

(*S*)-2-Phenyl-1-butyl acetate

Ee = 62%

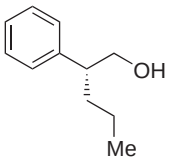
$[\alpha]_D^{21} = +10.4$ (*c* 2.17, $CHCl_3$)

Source of chirality: lipase-catalysed resolution

Absolute configuration: *S*

Masashi Kawasaki,* Michimasa Goto, Shigeki Kawabata and Tadashi Kometani

Tetrahedron: Asymmetry *12 (2001) 585*



$C_{11}H_{16}O$

(*R*)-2-Phenyl-1-pentanol

Ee = 78%

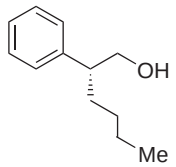
$[\alpha]_D^{23} = -7.8$ (*c* 1.16, $CHCl_3$)

Source of chirality: lipase-catalysed resolution

Absolute configuration: *R*

Masashi Kawasaki,* Michimasa Goto, Shigeki Kawabata and Tadashi Kometani

Tetrahedron: Asymmetry *12 (2001) 585*



$C_{12}H_{18}O$

(*R*)-2-Phenyl-1-hexanol

Ee = 80%

$[\alpha]_D^{22} = -26.0$ (*c* 0.93, MeOH)

Source of chirality: lipase-catalysed resolution

Absolute configuration: *R*

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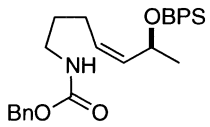
Tetrahedron: Asymmetry *12 (2001) 597*



$C_{31}H_{39}NO_3Si$

N-(Benzyloxycarbonyl)-(4*Z*,6*S*)-6-[(*tert*-butyldiphenylsilyl)oxy]-4-heptenamine

$[\alpha]_D = +3.8$ (*c* 1.8, $CHCl_3$)

Source of chirality: ethyl (*S*)-(−)-lactate and stereoselective synthesis

Absolute stereochemistry: (4*Z*,6*S*)

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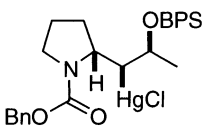
Tetrahedron: Asymmetry *12 (2001) 597*



$C_{31}H_{38}NO_3SiHgCl$

N-(Benzyloxycarbonyl)-(2*R*)-2-[(1′*S*,2′*S*)-1′-chlormercurio-2′-((*tert*-butyldiphenylsilyl)oxy)prop-1′-yl]pyrrolidine

$[\alpha]_D = +2.8$ (*c* 1.8, $CHCl_3$)

Source of chirality: ethyl (*S*)-(−)-lactate and stereoselective synthesis

Absolute stereochemistry: (2*R*,1′*S*,2′*S*)

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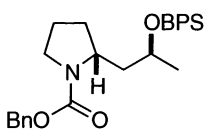
Tetrahedron: Asymmetry *12 (2001) 597*



$C_{31}H_{39}NO_3Si$

N-(Benzyloxycarbonyl)-(2*R*)-2-[(2′*S*)-2′-((*tert*-butyldiphenylsilyl)oxy)-prop-1′-yl]pyrrolidine

$[\alpha]_D = +10.9$ (*c* 2.3, $CHCl_3$)

Source of chirality: ethyl (*S*)-(−)-lactate and stereoselective synthesis

Absolute stereochemistry: (2*R*,2′*S*)

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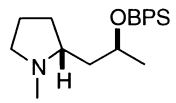
Tetrahedron: Asymmetry *12 (2001) 597*



$[\alpha]_D = +31.7$ (*c* 1.4, $CHCl_3$)

Source of chirality: ethyl (*S*)-(−)-lactate and stereoselective synthesis

Absolute stereochemistry: (2*R*,2′*S*)

$C_{24}H_{35}NOSi$

N-(Methyl)-(2*R*)-2-[(2′*S*)-2′-((*tert*-butyldiphenylsilyl)oxy)prop-1′-yl]pyrrolidine

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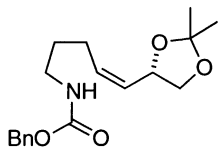
Tetrahedron: Asymmetry *12 (2001) 597*



$[\alpha]_D = -10.0$ (*c* 1.0, CH_2Cl_2)

Source of chirality: D-mannitol and stereoselective synthesis

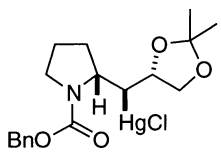
Absolute stereochemistry: (4*Z*,4′*S*)

$C_{18}H_{25}NO_4$

N-Benzyloxycarbonyl-(4*Z*)-5-[(4′*S*)-2′,2′-dimethyl-1′,3′-dioxolan-4′-yl]-4′-pentenamine

Gina Enierga, Maria Espiritu, Patrick Perlmutter,* Ngoc Pham, Mark Rose, Stefan Sjöberg, Neeranat Thienthong and Katie Wong

Tetrahedron: Asymmetry *12 (2001) 597*



$[\alpha]_D = +59.6$ (*c* 1.0, CH_2Cl_2)

Source of chirality: D-mannitol and stereoselective synthesis

Absolute stereochemistry: (5*R*,1′*S*,4″*S*)

$C_{18}H_{24}NO_4HgCl$

N-Benzyloxycarbonyl-(5*R*)-5-[(1′*S*)-chloromercurio((4″*S*)-2″,2″-dimethyl-1″,3″-dioxolan-4″-yl)methylene]pyrrolidine

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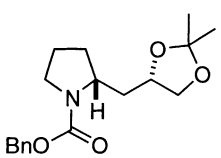
Tetrahedron: Asymmetry *12 (2001) 597*



$[\alpha]_D = +35.1$ (*c* 1.0, CH_2Cl_2)

Source of chirality: D-mannitol and stereoselective synthesis

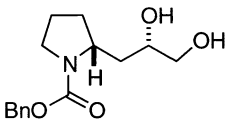
Absolute stereochemistry: (5*R*,4′*S*)

$C_{18}H_{25}NO_4$

N-Benzyloxycarbonyl-(5*R*)-[((4′*S*)-2′,2′-dimethyl-1′,3′-dioxolan-4′-yl)-methylene]pyrrolidine

Gina Enierga, Maria Espiritu, Patrick Perlmutter,* Ngoc Pham, Mark Rose, Stefan Sjöberg, Neeranat Thienthong and Katie Wong

Tetrahedron: Asymmetry *12 (2001) 597*



$C_{15}H_{21}NO_4$

N-Benzyloxycarbonyl-(5*R*)-5-[(2′*S*)-2′,3′-dihydroxyprop-1′-yl]pyrrolidine

$[\alpha]_D = -2.4$ (*c* 1.0, CH_2Cl_2)

Source of chirality: D-mannitol and stereoselective synthesis

Absolute stereochemistry: (5*R*,2′*S*)

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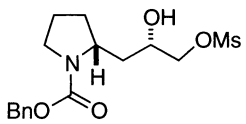
Tetrahedron: Asymmetry *12 (2001) 597*



$C_{16}H_{23}NO_6$

N-Benzyloxycarbonyl-(5*R*)-5-[(2′*S*)-2′-hydroxy-3′-methanesulfonyloxyprop-1′-yl]pyrrolidine

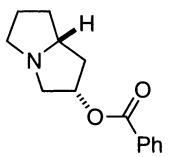
$[\alpha]_D = +4.1$ (*c* 1.0, CH_2Cl_2)

Source of chirality: D-mannitol and stereoselective synthesis

Absolute stereochemistry: (5*R*,2′*S*)

Gina Enierga, Maria Espiritu, Patrick Perlmutter,* Ngoc Pham, Mark Rose, Stefan Sjöberg, Neeranat Thienthong and Katie Wong

Tetrahedron: Asymmetry *12 (2001) 597*



$C_{14}H_{17}NO_6$

(3*S*,5′*R*)-3-Benzoyloxypyrrolizidine

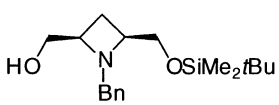
$[\alpha]_D = -4.6$ (*c* 1.0, CH_2Cl_2)

Source of chirality: D-mannitol and stereoselective synthesis

Absolute stereochemistry: (3*S*,5′*R*)

Giuseppe Guanti* and Renata Riva*

Tetrahedron: Asymmetry *12 (2001) 605*



$C_{18}H_{31}NO_2Si$

(2*R*,4*S*)-1-Benzyl-4-{[(*t*-butyldimethyl)silyloxy]methyl}azetidine-2-methanol

Ee = 98% (by ^1H NMR)

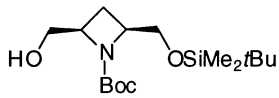
$[\alpha]_D^{25} = -16.7$ (*c* 2.11, $CHCl_3$)

Source of chirality: enzymatic asymmetrisation

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

Giuseppe Guanti* and Renata Riva*

Tetrahedron: Asymmetry *12 (2001) 605*



$C_{16}H_{33}NO_4Si$

(2*R*,4*S*)-1-(*t*-Butoxycarbonyl)-4-{[(*t*-butyldimethyl)silyloxy]methyl}-azetidine-2-methanol

Ee = 98% (by ^1H NMR)

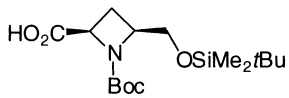
$[\alpha]_D^{25} = -39.0$ (*c* 1.52, $CHCl_3$)

Source of chirality: enzymatic asymmetrisation

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

Giuseppe Guanti* and Renata Riva*

Tetrahedron: Asymmetry *12 (2001) 605*



$C_{16}H_{31}NO_5Si$

(2*R*,4*S*)-1-(*t*-Butoxycarbonyl)-4-{[(*t*-butyldimethyl)silyloxy]methyl}-azetidine-2-carboxylic acid

Ee = 98% (by ^1H NMR)

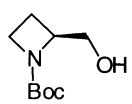
$[\alpha]_D^{25} = +9.3$ (*c* 0.92, $CHCl_3$)

Source of chirality: enzymatic asymmetrisation

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

Giuseppe Guanti* and Renata Riva*

Tetrahedron: Asymmetry *12 (2001) 605*



$C_9H_{17}NO_3$

(*S*)-1-(*t*-Butoxycarbonyl)azetidine-2-methanol

Ee = 100%

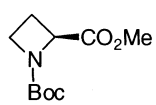
$[\alpha]_D^{25} = -20.3$ (*c* 0.72, $CHCl_3$)

Source of chirality: commercial (*S*)-azetidine-2-carboxylic acid

Absolute configuration: (*S*)

Giuseppe Guanti* and Renata Riva*

Tetrahedron: Asymmetry *12 (2001) 605*



$C_{10}H_{17}NO_4$

Methyl (*S*)-1-(*t*-butoxycarbonyl)azetidine-2-carboxylate

Ee = 100%

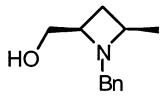
$[\alpha]_D^{25} = -108.6$ (*c* 1.06, $CHCl_3$)

Source of chirality: commercial (*S*)-azetidine-2-carboxylic acid

Absolute configuration: (*S*)

Giuseppe Guanti* and Renata Riva*

Tetrahedron: Asymmetry *12 (2001) 605*



$C_{12}H_{17}NO$

(2*R*,4*R*)-1-Benzyl-4-methylazetidine-2-methanol

Ee = 98% (by HPLC)

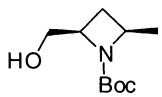
$[\alpha]_D^{25} = -15.9$ (*c* 0.81, $CHCl_3$)

Source of chirality: enzymatic asymmetrisation

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

Giuseppe Guanti* and Renata Riva*

Tetrahedron: Asymmetry *12 (2001) 605*



$C_{10}H_{19}NO_3$

(2*R*,4*R*)-1-*t*-Butoxycarbonyl-4-methylazetidine-2-methanol

Ee = 98% (by HPLC)

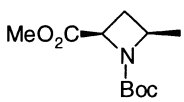
$[\alpha]_D^{25} = -12.0$ (*c* 2.02, $CHCl_3$)

Source of chirality: enzymatic asymmetrisation

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

Giuseppe Guanti* and Renata Riva*

Tetrahedron: Asymmetry *12 (2001) 605*



$C_{11}H_{19}NO_4$

Methyl (2*R*,4*R*)-1-(*t*-butoxycarbonyl)-4-methylazetidine-2-carboxylate

Ee = 98% (by HPLC)

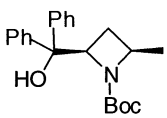
$[\alpha]_D^{25} = +70.2$ (*c* 1.72, $CHCl_3$)

Source of chirality: enzymatic asymmetrisation

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

Giuseppe Guanti* and Renata Riva*

Tetrahedron: Asymmetry *12 (2001) 605*



$C_{22}H_{27}NO_3$

(2*R*,4*R*)-1-(*t*-Butoxycarbonyl)-α,α-diphenyl-4-methylazetidine-2-methanol

Ee = 98% (by HPLC)

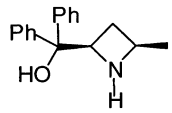
$[\alpha]_D^{25} = +261.5$ (*c* 0.76, $CHCl_3$)

Source of chirality: enzymatic asymmetrisation

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

Giuseppe Guanti* and Renata Riva*

Tetrahedron: Asymmetry *12 (2001) 605*



$C_{17}H_{19}NO$

(2*R*,4*R*)-α,α-Diphenyl-4-methylazetidine-2-methanol

Ee ≅ 100% (by HPLC)

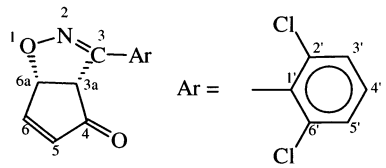
$[\alpha]_D^{25} = +23.5$ (*c* 0.78, $CHCl_3$)

Source of chirality: enzymatic asymmetrisation

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

Giorgio Adembri, M. Laura Paoli, Patrizia Rossi and Alessandro Sega*

Tetrahedron: Asymmetry *12 (2001) 619*



$C_{12}H_7Cl_2NO_2$

(3a*S*,6a*R*)-(+)-(2,6-Dichlorophenyl)-3a,6a-dihydro-4*H*-cyclopent[*d*]isoxazol-4-one

Ee = 100%

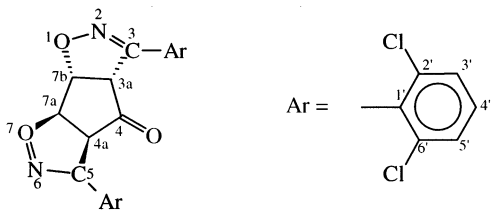
$[\alpha]_D^{20} = +347.6$ (*c* = 0.3, $CHCl_3$)

Source of chirality: (1*R*,4*S*)-(+)-cyclopentene-1,3-diol 1-acetate and enantioselective synthesis

Absolute configuration: (3a*S*,6a*R*)

Giorgio Adembri, M. Laura Paoli, Patrizia Rossi and Alessandro Sega*

Tetrahedron: Asymmetry *12 (2001) 619*



$C_{19}H_{10}Cl_4N_2O_3$

(3a*S*,4a*S*,7a*R*,7b*R*)-(+)-3,5-Di(2,6-dichlorophenyl)-4*H*-[1,2]oxazolo[5′,4′:3,4]-cyclopenta[*d*][1,2]oxazol-4-one

Ee = 100%

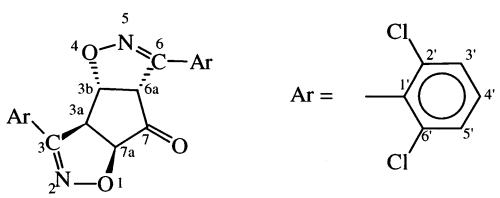
$[\alpha]_D^{20} = +362.3$ (*c* = 0.6, $CHCl_3$)

Source of chirality: (1*R*,4*S*)-(+)-cyclopentene-1,3-diol 1-acetate and enantioselective synthesis

Absolute configuration: (3a*S*,4a*S*,7a*R*,7b*R*)

Giorgio Adembri, M. Laura Paoli, Patrizia Rossi and Alessandro Sega*

Tetrahedron: Asymmetry *12 (2001) 619*



$C_{19}H_{10}Cl_4N_2O_3$

(3a*S*,3b*S*,6a*S*,7a*S*)-(+)-3,6-Di(2,6-dichlorophenyl)-7*H*-[1,2]oxazolo[5′,4′:3,4] cyclopenta[*d*][1,2]oxazol-7-one

Ee = 100%

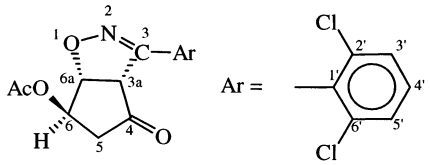
$[\alpha]_D^{20} = +428.6$ (*c* = 0.03, $CHCl_3$)

Source of chirality: (1*R*,4*S*)-(+)-cyclopentene-1,3-diol 1-acetate and enantioselective synthesis

Absolute configuration: (3a*S*,3b*S*,6a*S*,7a*S*)

Giorgio Adembri, M. Laura Paoli, Patrizia Rossi and Alessandro Sega*

Tetrahedron: Asymmetry *12 (2001) 619*



$C_{14}H_{11}Cl_2NO_4$

(3a*S*,6*R*,6a*R*)-(+)-3-(2,6-Dichlorophenyl)-4-oxo-4,5,6,6a-tetrahydro-3a*H*-cyclopent[*d*]isoxazol-6-yl acetate

Ee = 100%

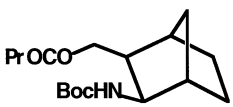
$[\alpha]_D^{20} = +319.5$ ($c = 0.3$, $CHCl_3$)

Source of chirality: (1*R*,4*S*)-(+)-cyclopentene-1,3-diol 1-acetate and enantioselective synthesis

Absolute configuration: (3a*S*,6*R*,6a*R*)

Judit Kámán, Johan Van der Eycken, Antal Péter and Ferenc Fülöp*

Tetrahedron: Asymmetry *12 (2001) 625*



$C_{17}H_{29}NO_4$

(1*R*,2*S*,3*R*,4*S*)-Di-*exo*-3-*tert*-butoxycarbonylaminobicyclo[2.2.1]heptane-2-methanol butanoic acid ester

Ee = 89% by HPLC on Chiralcel OD column

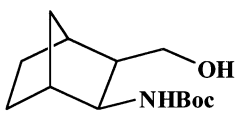
$[\alpha]_D^{20} = +53.5$ ($c = 1$, MeOH)

Source of chirality: Novozym 435-catalysed *O*-butyrylation

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

Judit Kámán, Johan Van der Eycken, Antal Péter and Ferenc Fülöp*

Tetrahedron: Asymmetry *12 (2001) 625*



$C_{13}H_{23}NO_3$

(1*S*,2*R*,3*S*,4*R*)-Di-*exo*-3-*tert*-butoxycarbonylaminobicyclo[2.2.1]-heptane-2-methanol

Ee = 99% by HPLC on Chiralcel OD column

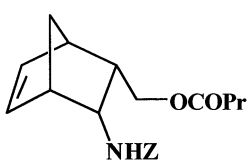
$[\alpha]_D^{20} = -55.1$ ($c = 1$, MeOH)

Source of chirality: Novozym 435-catalysed *O*-butyrylation

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

Judit Kámán, Johan Van der Eycken, Antal Péter and Ferenc Fülöp*

Tetrahedron: Asymmetry *12 (2001) 625*



$C_{20}H_{25}NO_4$

(1*R*,2*S*,3*R*,4*S*)-Di-*endo*-3-benzyloxycarbonylaminobicyclo[2.2.1]hept-5-ene-2-methanol butanoic acid ester

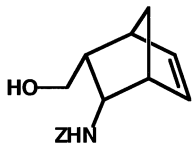
Ee = 92% by HPLC on Chiralcel OD column

$[\alpha]_D^{20} = -5.5$ ($c = 0.24$, MeOH)

Source of chirality: PPL-catalysed *O*-butyrylation

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

Judit Kámán, Johan Van der Eycken, Antal Péter and Ferenc Fülöp* | *Tetrahedron:* Asymmetry *12 (2001) 625*



$C_{16}H_{19}NO_3$

(1*S*,2*R*,3*S*,4*R*)-Di-*endo*-3-benzyloxycarbonylaminobicyclo[2.2.1]hept-5-ene-2-methanol

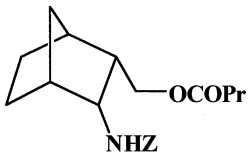
Ee = 90% by HPLC on Chiralcel OD column after derivatisation with acetic anhydride

$[\alpha]_D^{20} = +24$ ($c = 1$, MeOH)

Source of chirality: PPL-catalysed *O*-butyrylation

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

Judit Kámán, Johan Van der Eycken, Antal Péter and Ferenc Fülöp* | *Tetrahedron:* Asymmetry *12 (2001) 625*



$C_{20}H_{27}NO_4$

(1*S*,2*S*,3*R*,4*R*)-Di-*endo*-3-benzyloxycarbonylaminobicyclo[2.2.1]heptane-2-methanol butanoic acid ester

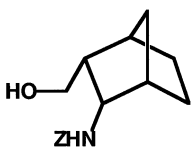
Ee = 95% by HPLC on Chiralcel OD column

$[\alpha]_D^{20} = +15.9$ ($c = 0.4$, MeOH)

Source of chirality: PPL-catalysed *O*-butyrylation

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

Judit Kámán, Johan Van der Eycken, Antal Péter and Ferenc Fülöp* | *Tetrahedron:* Asymmetry *12 (2001) 625*



$C_{16}H_{21}NO_3$

(1*R*,2*R*,3*S*,4*S*)-Di-*endo*-3-benzyloxycarbonylaminobicyclo[2.2.1]-heptane-2-methanol

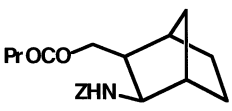
Ee = 96% by HPLC on Chiralcel OD column after derivatisation with acetic anhydride

$[\alpha]_D^{20} = -1.69$ ($c = 0.54$, MeOH)

Source of chirality: PPL-catalysed *O*-butyrylation

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

Judit Kámán, Johan Van der Eycken, Antal Péter and Ferenc Fülöp* | *Tetrahedron:* Asymmetry *12 (2001) 625*



$C_{20}H_{25}NO_4$

(1*S*,2*S*,3*R*,4*R*)-Di-*exo*-3-benzyloxycarbonylaminobicyclo[2.2.1]-hept-5-ene-2-methanol butanoic acid ester

Ee = 95% by HPLC on Chiralcel OD column

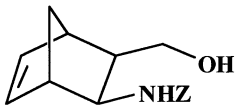
$[\alpha]_D^{20} = +52.3$ ($c = 1$, MeOH)

Source of chirality: PPL-catalysed *O*-butyrylation

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

Judit Kámán, Johan Van der Eycken, Antal Péter and Ferenc Fülöp*

Tetrahedron: Asymmetry *12 (2001) 625*



$C_{16}H_{19}NO_3$

(1*R*,2*R*,3*S*,4*S*)-Di-*exo*-3-benzyloxycarbonylaminobicyclo[2.2.1]-hept-5-ene-2-methanol

Ee = 99% by HPLC on Chiralcel OD column

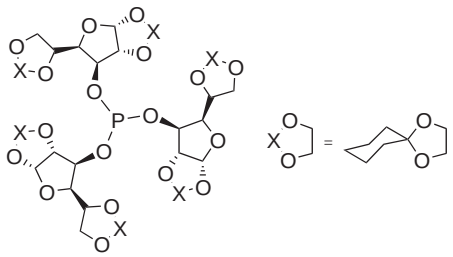
$[\alpha]_D^{20} = -57.6$ ($c = 0.96$, MeOH)

Source of chirality: PPL-catalysed *O*-butyrylation

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

Andrés Suárez, Antonio Pizzano,* Inmaculada Fernández and Noureddine Khiar

Tetrahedron: Asymmetry *12 (2001) 633*



$C_{54}H_{81}O_{18}P$

Tris(1,2:5,6-di(-*O*-cyclohexylidene)-D-glucofuranosyl) phosphite

Ee = 100%

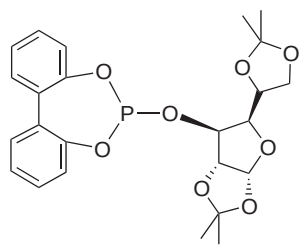
$[\alpha]_D^{20} = 15.9$ (c 1.0, THF)

Source of chirality: D-glucose

Absolute configuration: D-*gluco*

Andrés Suárez, Antonio Pizzano,* Inmaculada Fernández and Noureddine Khiar

Tetrahedron: Asymmetry *12 (2001) 633*



$C_{24}H_{27}O_8P$

(1,2:5,6-Di-(*O*-isopropylidene)-D-glucofuranosyl)-1,1′-biphenyl-2,2′-diyl phosphite

Ee = 100%

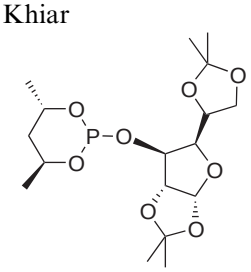
$[\alpha]_D^{20} = -22.7$ (c 1.0, THF)

Source of chirality: D-glucose

Absolute configuration: D-*gluco*

Andrés Suárez, Antonio Pizzano,* Inmaculada Fernández and Noureddine Khiar

Tetrahedron: Asymmetry *12 (2001) 633*



$C_{17}H_{29}O_8P$

(*S*,*S*)-Pentane-2,4-diyl-(1,2:5,6-di(*O*-isopropylidene)-D-glucofuranosyl) phosphite

Ee = 100%

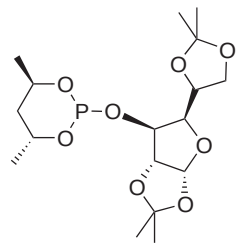
$[\alpha]_D^{20} = -100.4$ (c 1.0, THF)

Source of chirality: D-glucose and (*S*,*S*)-2,4-pentanediol

Absolute configuration: (*S*,*S*)-D-*gluco*

Andrés Suárez, Antonio Pizzano,* Inmaculada Fernández and Noureddine Khiar

Tetrahedron: Asymmetry *12 (2001) 633*



$C_{17}H_{29}O_8P$

(*R*,*R*)-Pentane-2,4-diyl-(1,2:5,6-di(*O*-isopropylidene)-D-glucofuranosyl) phosphite

Ee = 100%

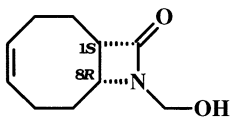
$[\alpha]_D^{25} = -48.2$ (*c* 1.0, THF)

Source of chirality: D-glucose and (*R*,*R*)-2,4-pentanediol

Absolute configuration: (*R*,*R*)-D-*gluco*

Enikő Forró, Judit Árva and Ferenc Fülöp*

Tetrahedron: Asymmetry *12 (2001) 643*



$C_{10}H_{15}NO_2$

(1*S*,8*R*)-9-Hydroxymethyl-9-azabicyclo[6.2.0]dec-4-en-10-one

Ee = 97% by GC on CP-Chirasil-Dex CB column

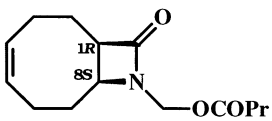
$[\alpha]_D^{25} = -27.0$ (*c* = 1, MeOH)

Source of chirality: lipase PS-catalysed *O*-butyrylation

Absolute configuration: (1*S*,8*R*)

Enikő Forró, Judit Árva and Ferenc Fülöp*

Tetrahedron: Asymmetry *12 (2001) 643*



$C_{14}H_{21}NO_3$

(1*R*,8*S*)-9-Butyryloxymethyl-9-azabicyclo[6.2.0]dec-4-en-10-one

Ee = 92% by GC on CP-Chirasil-Dex CB column

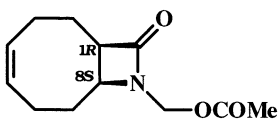
$[\alpha]_D^{25} = -29.5$ (*c* = 1, MeOH)

Source of chirality: lipase PS-catalysed *O*-butyrylation

Absolute configuration: (1*R*,8*S*)

Enikő Forró, Judit Árva and Ferenc Fülöp*

Tetrahedron: Asymmetry *12 (2001) 643*



$C_{12}H_{17}NO_3$

(1*R*,8*S*)-9-Acetyloxymethyl-9-azabicyclo[6.2.0]dec-4-en-10-one

Ee = 83% by GC on CP-Chirasil-Dex CB column

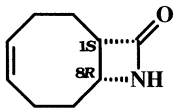
$[\alpha]_D^{25} = -27.9$ (*c* = 1, MeOH)

Source of chirality: lipase PS-catalysed *O*-acetylation

Absolute configuration: (1*R*,8*S*)

Enikő Forró, Judit Árva and Ferenc Fülöp*

Tetrahedron: Asymmetry *12 (2001) 643*



$C_9H_{13}NO$

(1*S*,8*R*)-9-Azabicyclo[6.2.0]dec-4-en-10-one

Ee = 99% by GC on CP-Chirasil-Dex CB column

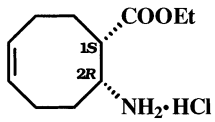
$[\alpha]_D^{25} = -20.2$ ($c = 0.35$, MeOH)

Source of chirality: lipase PS-catalysed *O*-butyrylation followed by NH_4OH/MeOH treatment

Absolute configuration: (1*S*,8*R*)

Enikő Forró, Judit Árva and Ferenc Fülöp*

Tetrahedron: Asymmetry *12 (2001) 643*



$C_{11}H_{20}ClNO_2$

Ethyl (1*S*,2*R*)-2-aminocyclooct-5-enecarboxylate hydrochloride

Ee = 98% by GC on Chirasil-*L*-Val column after derivatisation with hexanoic anhydride

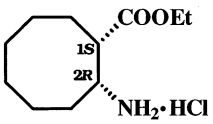
$[\alpha]_D^{25} = +1.8$ ($c = 1$, EtOH)

Source of chirality: synthesis from its chiral β-lactam precursor

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

Enikő Forró, Judit Árva and Ferenc Fülöp*

Tetrahedron: Asymmetry *12 (2001) 643*



$C_{11}H_{22}ClNO_2$

Ethyl (1*S*,2*R*)-2-aminocyclooctanecarboxylate hydrochloride

Ee = 97% by GC on Chirasil-*L*-Val column after derivatisation with hexanoic anhydride

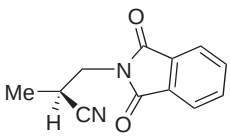
$[\alpha]_D^{25} = -7.0$ ($c = 0.5$, EtOH)

Source of chirality: reduction of the unsaturated aminoester

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

Dilek Saylik, Eva M. Campi, Andrew C. Donohue, W. Roy Jackson* and Andrea J. Robinson

Tetrahedron: Asymmetry *12 (2001) 657*



$C_{12}H_{10}N_2O_2$

(2*S*)-2-(2-Cyanopropyl)phthalimide

E.e. = 14%

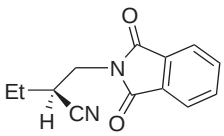
$[\alpha]_D^{20} = +8.3$ (c 2.0, $CHCl_3$)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (*S*)

Dilek Saylik, Eva M. Campi, Andrew C. Donohue, W. Roy Jackson* and Andrea J. Robinson

Tetrahedron: Asymmetry *12 (2001) 657*



$C_{13}H_{12}N_2O_2$

(2*S*)-2-(2-Cyanobutyl)phthalimide

E.e. = 33%

$[\alpha]_D^{20} = +1.0$ (*c* 2.0, $CHCl_3$)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (*S*)

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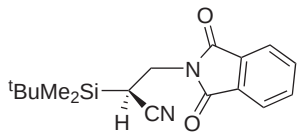
Tetrahedron: Asymmetry *12 (2001) 657*



$C_{18}H_{24}N_2O_2Si$

(2*S*)-2-(3-*t*-Butyldimethylsilyl-2-cyanopropyl)phthalimide

E.e. = 48%

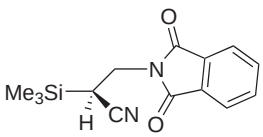
$[\alpha]_D^{20} = -8.3$ (*c* 2.0, $CHCl_3$)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (*S*)

Dilek Saylik, Eva M. Campi, Andrew C. Donohue, W. Roy Jackson* and Andrea J. Robinson

Tetrahedron: Asymmetry *12 (2001) 657*



$C_{15}H_{18}N_2O_2Si$

(2*S*)-2-[2-Cyano-3-(trimethylsilyl)propyl]phthalimide

E.e. = 14%

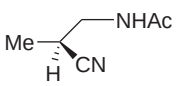
$[\alpha]_D^{20} = +2.5$ (*c* 2.0, $CHCl_3$)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (*S*)

Dilek Saylik, Eva M. Campi, Andrew C. Donohue, W. Roy Jackson* and Andrea J. Robinson

Tetrahedron: Asymmetry *12 (2001) 657*



$C_6H_{10}N_2O$

(2*S*)-*N*-(2-Cyanopropyl)phthalimide

E.e. = 64%

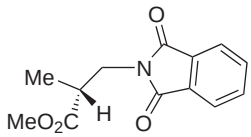
$[\alpha]_D^{20} = +77.8$ (*c* 2.0, $CHCl_3$)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (*S*)

Dilek Saylik, Eva M. Campi, Andrew C. Donohue, W. Roy Jackson* and Andrea J. Robinson

Tetrahedron: Asymmetry *12 (2001) 657*



$C_{13}H_{13}NO_4$

(2*R*)-Methyl 2-methyl-3-phthalimidopropanoate

E.e. = 84%

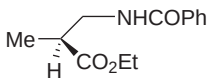
$[\alpha]_D^{20} = -17.2$ (*c* 0.95, $CHCl_3$)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (*R*)

Dilek Saylik, Eva M. Campi, Andrew C. Donohue, W. Roy Jackson* and Andrea J. Robinson

Tetrahedron: Asymmetry *12 (2001) 657*



$C_{13}H_{17}NO_3$

(2*S*)-Ethyl 3-benzoylamino-2-methylpropanoate

E.e. = 11%

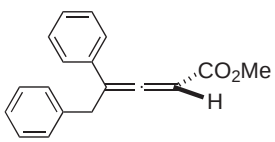
$[\alpha]_D^{20} = +3.1$ (*c* 1.0, $CHCl_3$)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (*S*)

Jiro Yamazaki, Toshiyuki Watanabe and Kiyoshi Tanaka*

Tetrahedron: Asymmetry *12 (2001) 669*



$C_{18}H_{16}O_2$

(a*R*)-(−)-Methyl 4,5-diphenylpenta-2,3-dienoate

Ee = 89%

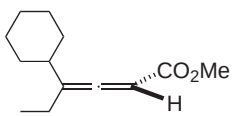
$[\alpha]_D^{24} = -155$ (*c* 3.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: a*R*

Jiro Yamazaki, Toshiyuki Watanabe and Kiyoshi Tanaka*

Tetrahedron: Asymmetry *12 (2001) 669*



$C_{13}H_{20}O_2$

(a*R*)-(−)-Methyl 4-cyclohexylhexa-2,3-dienoate

Ee = 78%

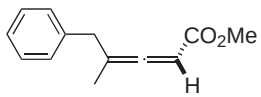
$[\alpha]_D^{24} = -53$ (*c* 1.0, CCl_4)

Source of chirality: asymmetric synthesis

Absolute configuration: a*R*

Jiro Yamazaki, Toshiyuki Watanabe and Kiyoshi Tanaka*

Tetrahedron: Asymmetry *12 (2001) 669*



$C_{13}H_{14}O_2$

(a*R*)-(−)-Methyl 4-methyl-5-phenylpenta-2,3-dienoate

Ee = 32%

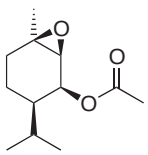
$[\alpha]_D^{24} = -19$ (*c* 0.15, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: a*R*

Ángel Cantín, Cristina Lull, Jaime Primo, Miguel A. Miranda and Eduardo Primo-Yúfera*

Tetrahedron: Asymmetry *12 (2001) 677*



$C_{12}H_{20}O_3$

(1*R*,2*S*,3*S*,4*R*)-1,2-Epoxy-1-methyl-4-(1-methylethyl)-cyclohex-3-yl acetate

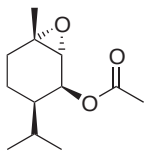
$[\alpha]_D^{20} = -146$ (*c* 1.15, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Ángel Cantín, Cristina Lull, Jaime Primo, Miguel A. Miranda and Eduardo Primo-Yúfera*

Tetrahedron: Asymmetry *12 (2001) 677*



$C_{12}H_{20}O_3$

(1*S*,2*R*,3*S*,4*R*)-1,2-Epoxy-1-methyl-4-(1-methylethyl)-cyclohex-3-yl acetate

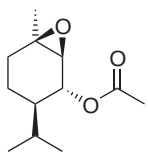
$[\alpha]_D^{20} = -80$ (*c* 1.16, $CHCl_3$)

Source of chirality: synthesis from (*R*)-(−)-piperitone

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

Ángel Cantín, Cristina Lull, Jaime Primo, Miguel A. Miranda and Eduardo Primo-Yúfera*

Tetrahedron: Asymmetry *12 (2001) 677*



$C_{12}H_{20}O_3$

(1*R*,2*S*,3*R*,4*R*)-1,2-Epoxy-1-methyl-4-(1-methylethyl)-cyclohex-3-yl acetate

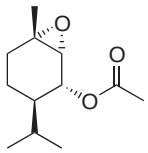
$[\alpha]_D^{20} = +29$ (*c* 1.00, $CHCl_3$)

Source of chirality: synthesis from (*R*)-(−)-piperitone

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

Ángel Cantín, Cristina Lull, Jaime Primo, Miguel A. Miranda and Eduardo Primo-Yúfera*

Tetrahedron: Asymmetry *12 (2001) 677*

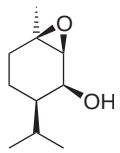


$[\alpha]_D^{20} = -138$ (c 1.81, $CHCl_3$)
Source of chirality: synthesis from (*R*)-(−)-piperitone
Absolute configuration: 1*S*,2*R*,3*R*,4*R*

$C_{12}H_{20}O_3$
(1*S*,2*R*,3*R*,4*R*)-1,2-Epoxy-1-methyl-4-(1-methylethyl)-cyclohex-3-yl acetate

Ángel Cantín, Cristina Lull, Jaime Primo, Miguel A. Miranda and Eduardo Primo-Yúfera*

Tetrahedron: Asymmetry *12 (2001) 677*

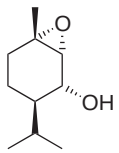


$[\alpha]_D^{20} = -85$ (c 2.93, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (1*R*,2*S*,3*S*,4*R*)

$C_{10}H_{18}O_2$
(1*R*,2*S*,3*S*,4*R*)-1,2-Epoxy-1-methyl-4-(1-methylethyl)-cyclohex-3-ol

Ángel Cantín, Cristina Lull, Jaime Primo, Miguel A. Miranda and Eduardo Primo-Yúfera*

Tetrahedron: Asymmetry *12 (2001) 677*

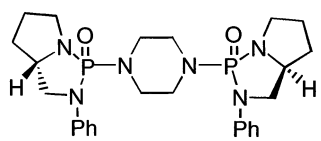


$[\alpha]_D^{20} = +28$ (c 1.41, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (1*S*,2*R*,3*R*,4*R*)

$C_{10}H_{18}O_2$
(1*S*,2*R*,3*R*,4*R*)-1,2-Epoxy-1-methyl-4-(1-methylethyl)-cyclohex-3-ol

Deevi Basavaiah,* Gone Jayapal Reddy and Vanampally Chandrashekar

Tetrahedron: Asymmetry *12 (2001) 685*

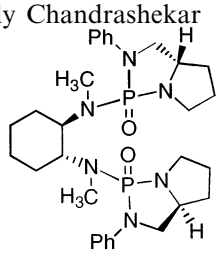


$[\alpha]_D^{25} = -59.4$ (c 1.4, $CHCl_3$)
Source of chirality: L-glutamic acid
Absolute configuration: 5*S*

$C_{26}H_{36}N_6O_2P_2$
1,4-Bis[(5*S*)-1,3-diaza-2-phospha-2-oxo-3-phenylbicyclo(3.3.0)octan-2-yl]piperazine

Deevi Basavaiah,* Gone Jayapal Reddy and Vanampally Chandrashekar

Tetrahedron: Asymmetry *12 (2001) 685*



$C_{30}H_{44}N_6O_2P_2$

(1*R*,2*R*)-1,2-Bis[{(5*S*)-1,3-diaza-2-phospha-2-oxo-3-phenylbicyclo(3.3.0)octan-2-yl}methylamino]cyclohexane

$[\alpha]_D^{25} = +35.0$ (*c* 1.4, $CHCl_3$)

Source of chirality: (*S*)-glutamic acid, (*1R,2R)*-diaminocyclohexane

Absolute configuration: (*1R,2R,5′S*)

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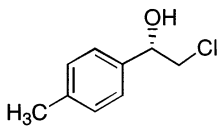
Tetrahedron: Asymmetry *12 (2001) 685*



$C_9H_{11}ClO$

(1*S*)-2-Chloro-1-(4-methylphenyl)ethanol

Ee = 92% (by HPLC, Chiralcel OD)

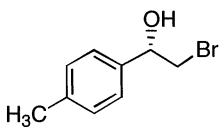
$[\alpha]_D^{25} = +47.2$ (*c* 1.1, $CHCl_3$)

Source of chirality: catalytic enantioselective reduction of 4-methylphenacyl chloride

Absolute configuration: 1*S*

Deevi Basavaiah,* Gone Jayapal Reddy and Vanampally Chandrashekar

Tetrahedron: Asymmetry *12 (2001) 685*



$C_9H_{11}BrO$

(1*S*)-2-Bromo-1-(4-methylphenyl)ethanol

Ee = 95% (by HPLC, Chiralcel OD)

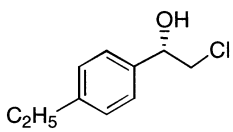
$[\alpha]_D^{25} = +41.8$ (*c* 1.0, $CHCl_3$)

Source of chirality: catalytic enantioselective reduction of 4-methylphenacyl bromide

Absolute configuration: 1*S*

Deevi Basavaiah,* Gone Jayapal Reddy and Vanampally Chandrashekar

Tetrahedron: Asymmetry *12 (2001) 685*



$C_{10}H_{13}ClO$

(1*S*)-2-Chloro-1-(4-ethylphenyl)ethanol

Ee = 92% (by HPLC, Chiralcel OD)

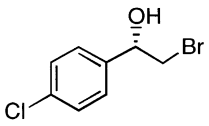
$[\alpha]_D^{25} = +41.0$ (*c* 1.0, $CHCl_3$)

Source of chirality: catalytic enantioselective reduction of 4-ethylphenacyl chloride

Absolute configuration: 1*S*

Deevi Basavaiah,* Gone Jayapal Reddy and Vanampally Chandrashekar

Tetrahedron: Asymmetry *12 (2001) 685*



C_8H_8BrClO

(1*S*)-2-Bromo-1-(4-chlorophenyl)ethanol

Ee = 91% [by ^1H NMR spectral analysis of the corresponding acetate in the presence of chiral shift reagent, $Eu(hfc)_3$]

$[\alpha]_D^{25} = +38.6$ (*c* 1.15, $CHCl_3$)

Source of chirality: catalytic enantioselective reduction of 4-chlorophenacyl bromide

Absolute configuration: 1*S*