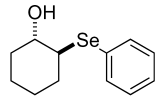
Leandro Piovan, Marina Capelari, Leandro H. Andrade, João V. Comasseto and André L. M. Porto*

Tetrahedron: Asymmetry *18 (2007) 1398*

Ee = 99%
$[\alpha]_D^{25} = +44.8$ (*c* 0.53, $CHCl_3$)
Absolute configuration: (*S*,*S*)

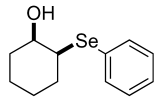


$C_{12}H_{16}SeO$
trans-(1*S*,2*S*)-2-(Phenylseleno)cyclohexanol

Leandro Piovan, Marina Capelari, Leandro H. Andrade, João V. Comasseto and André L. M. Porto*

Tetrahedron: Asymmetry *18 (2007) 1398*

Ee = 99%
$[\alpha]_D^{25} = +10.1$ (*c* 0.42, $CHCl_3$)
Absolute configuration: (*R*,*S*)

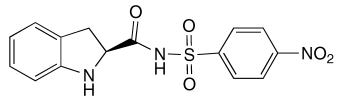


$C_{12}H_{16}SeO$
cis-(1*S*,2*S*)-2-(Phenylseleno)cyclohexanol

Antti Hartikka, Adam T. Ślósarczyk and Per I. Arvidsson*

Tetrahedron: Asymmetry *18 (2007) 1403*

$[\alpha]_D^{23} = +5.5$ (*c* 1.0, MeOH)

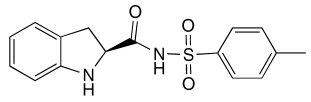


$C_{15}H_{13}N_3O_5S$
(*S*)-*N*-[(4-Nitrophenyl)sulfonyl]indoline-2-carboxamide

Antti Hartikka, Adam T. Ślósarczyk and Per I. Arvidsson*

Tetrahedron: Asymmetry *18 (2007) 1403*

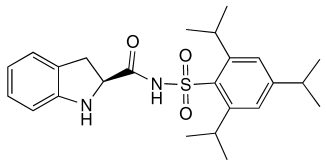
$[\alpha]_D^{23} = -5.4$ (*c* 1.0, MeOH)



$C_{16}H_{16}N_2O_3S$
(*S*)-*N*-[(4-Methylphenyl)sulfonyl]indoline-2-carboxamide

Antti Hartikka, Adam T. Ślósarczyk and Per I. Arvidsson*

Tetrahedron: Asymmetry *18 (2007) 1403*



$[\alpha]_D^{23} = -47.2$ (*c* 1.0, MeOH)

$C_{24}H_{32}N_2O_3S$

(*S*)-*N*-[(2,4,6-Triisopropylphenyl)sulfonyl]indoline-2-carboxamide

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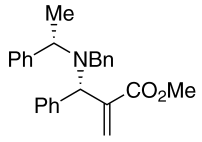
Matthias Breuning* and David Hein

Tetrahedron: Asymmetry *18 (2007) 1410*



Ee >97%, de >95% (NMR)

$[\alpha]_D^{21} = +88.7$ (*c* 0.13, $CHCl_3$)

Source of chirality: asymmetric synthesis

$C_{26}H_{27}NO_2$

Methyl 2-{(*S*)-[*N*-benzyl-*N*-((*S*)-1-phenylethyl)amino]phenylmethyl}acrylate

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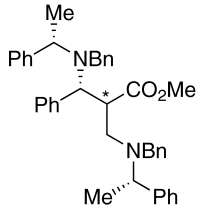
Matthias Breuning* and David Hein

Tetrahedron: Asymmetry *18 (2007) 1410*



Ee >97%, de >95% (NMR)

$[\alpha]_D^{22} = -102.2$ (*c* 0.14, $CHCl_3$)

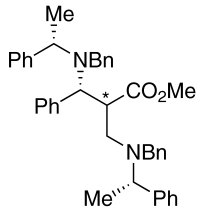
Source of chirality: asymmetric synthesis

$C_{41}H_{44}N_2O_2$

Methyl (*R*)-3-[*N*-benzyl-*N*-((*S*)-1-phenylethyl)amino]-2-{[*N*-benzyl-*N*-((*S*)-1-phenylethyl)amino]methyl}-3-phenylpropionate [faster eluting diastereomer (silica gel, *n*-pentane–Et_2O 10:1)]

Matthias Breuning* and David Hein

Tetrahedron: Asymmetry *18 (2007) 1410*



Ee >97%, de >95% (NMR)

$[\alpha]_D^{22} = +25.9$ (*c* 0.10, $CHCl_3$)

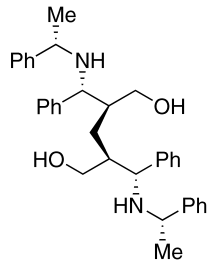
Source of chirality: asymmetric synthesis

$C_{41}H_{44}N_2O_2$

Methyl (*R*)-3-[*N*-benzyl-*N*-((*S*)-1-phenylethyl)amino]-2-{[*N*-benzyl-*N*-((*S*)-1-phenylethyl)amino]methyl}-3-phenylpropionate [slower eluting diastereomer (silica gel, *n*-pentane–Et_2O 10:1)]

Matthias Breuning* and David Hein

Tetrahedron: Asymmetry *18 (2007) 1410*



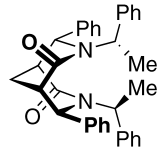
Ee >97%, de >95% (NMR)
$[\alpha]_D^{21} = -125.5$ (c 0.06, $CHCl_3$)
Source of chirality: asymmetric synthesis

$C_{35}H_{42}N_2O_2$

(2*S*,4*S*)-2,4-Bis[(*R*)-phenyl-((*S*)-1-phenylethylamino)methyl]pentane-1,5-diol

Matthias Breuning* and David Hein

Tetrahedron: Asymmetry *18 (2007) 1410*



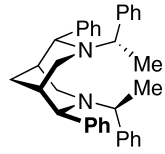
Ee >97%, de >95% (NMR)
$[\alpha]_D^{21} = +15.7$ (c 0.10, $CHCl_3$)
Source of chirality: asymmetric synthesis

$C_{35}H_{34}N_2O_2$

(1*S*,4*R*,5*S*,8*R*)-4,8-Diphenyl-3,7-bis((*S*)-1-phenylethyl)-3,7-diazabicyclo[3.3.1]nonane-2,6-dione

Matthias Breuning* and David Hein

Tetrahedron: Asymmetry *18 (2007) 1410*



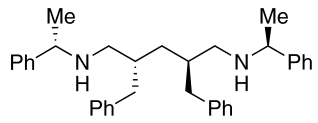
Ee >97%, de >95% (NMR)
$[\alpha]_D^{21} = -5.5$ (c 0.10, $CHCl_3$)
Source of chirality: asymmetric synthesis

$C_{35}H_{38}N_2$

(1*R*,2*R*,5*R*,6*R*)-2,6-Diphenyl-3,7-bis((*S*)-1-phenylethyl)-3,7-diazabicyclo[3.3.1]nonane

Matthias Breuning* and David Hein

Tetrahedron: Asymmetry *18 (2007) 1410*



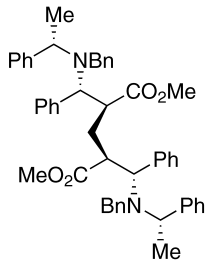
Ee >97%, de >95% (NMR)
$[\alpha]_D^{22} = +26.9$ (c 0.10, $CHCl_3$)
Source of chirality: asymmetric synthesis

$C_{35}H_{42}N_2$

(2*R*,4*R*)-2,4-Dibenzyl-*N*,*N*′-bis((*S*)-1-phenylethyl)-pentane-1,5-diamine

Matthias Breuning* and David Hein

Tetrahedron: Asymmetry *18 (2007) 1410*



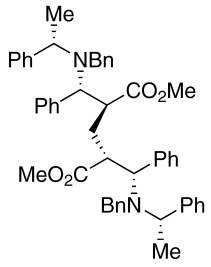
Ee >97%, de >95% (NMR)
$[\alpha]_D^{21} = +9.8$ (*c* 0.13, $CHCl_3$)
Source of chirality: asymmetric synthesis

$C_{51}H_{54}N_2O_4$

Dimethyl (2*S*,4*S*)-2,4-bis{(*R*)-[*N*-benzyl-*N*-((*S*)-1-phenylethyl)amino]phenylmethyl}glutarate

Matthias Breuning* and David Hein

Tetrahedron: Asymmetry *18 (2007) 1410*



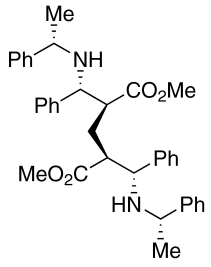
Ee >97%, de >95% (NMR)
$[\alpha]_D^{21} = +29.9$ (*c* 0.14, $CHCl_3$)
Source of chirality: asymmetric synthesis

$C_{51}H_{54}N_2O_4$

Dimethyl (2*S*,4*R*)-2,4-bis{(*R*)-[*N*-benzyl-*N*-((*S*)-1-phenylethyl)amino]phenylmethyl}glutarate

Matthias Breuning* and David Hein

Tetrahedron: Asymmetry *18 (2007) 1410*



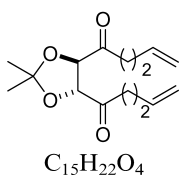
Ee >97%, de >95% (NMR)
$[\alpha]_D^{19} = -40.3$ (*c* 0.18, $CHCl_3$)
Source of chirality: asymmetric synthesis

$C_{37}H_{42}N_2O_4$

Dimethyl (2*S*,4*S*)-2,4-bis[(*R*)-phenyl-((*S*)-1-phenylethylamino)methyl]glutarate

Kavirayani R. Prasad* and Pazhamalai Anbarasan

Tetrahedron: Asymmetry *18 (2007) 1419*



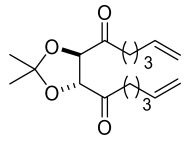
$[\alpha]_D = +10.5$ (*c* 1.8, $CHCl_3$)
Source of chirality: L-(+)-tartaric acid
Absolute configuration: (4*R*,5*R*)

$C_{15}H_{22}O_4$

(4*R*,5*R*)-4,5-Bis(pent-4-enoyl)-2,2-dimethyl-1,3-dioxolane

Kavirayani R. Prasad* and Pazhamalai Anbarasan

Tetrahedron: Asymmetry *18 (2007) 1419*



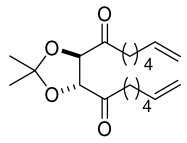
$C_{17}H_{26}O_4$

(4*R*,5*R*)-4,5-Bis(hex-5-enoyl)-2,2-dimethyl-1,3-dioxolane

$[\alpha]_D = +11.6$ (*c* 1.2, $CHCl_3$)
Source of chirality: L-(+)-tartaric acid
Absolute configuration: (4*R*,5*R*)

Kavirayani R. Prasad* and Pazhamalai Anbarasan

Tetrahedron: Asymmetry *18 (2007) 1419*



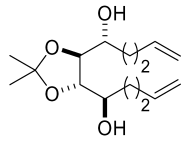
$C_{19}H_{30}O_4$

(4*R*,5*R*)-4,5-Bis(hept-6-enoyl)-2,2-dimethyl-1,3-dioxolane

$[\alpha]_D = +10.0$ (*c* 1.0, $CHCl_3$)
Source of chirality: L-(+)-tartaric acid
Absolute configuration: (4*R*,5*R*)

Kavirayani R. Prasad* and Pazhamalai Anbarasan

Tetrahedron: Asymmetry *18 (2007) 1419*



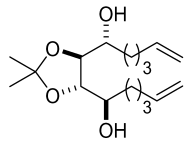
$C_{15}H_{26}O_4$

(4*S*,5*S*)-4,5-Bis((*R*)-1-hydroxypent-4-enyl)-2,2-dimethyl-1,3-dioxolane

$[\alpha]_D = -7.8$ (*c* 2.8, $CHCl_3$)
Source of chirality: L-(+)-tartaric acid
Absolute configuration: (4*S*,5*S*)

Kavirayani R. Prasad* and Pazhamalai Anbarasan

Tetrahedron: Asymmetry *18 (2007) 1419*



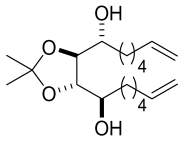
$C_{17}H_{30}O_4$

(4*S*,5*S*)-4,5-Bis((*R*)-1-hydroxyhex-5-enyl)-2,2-dimethyl-1,3-dioxolane

$[\alpha]_D = -7.5$ (*c* 1.1, $CHCl_3$)
Source of chirality: L-(+)-tartaric acid
Absolute configuration: (4*S*,5*S*)

Kavirayani R. Prasad* and Pazhamalai Anbarasan

Tetrahedron: Asymmetry *18 (2007) 1419*



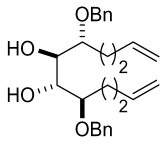
$C_{19}H_{34}O_4$

(4*S*,5*S*)-4,5-Bis((*R*)-1-hydroxyhept-6-enyl)-2,2-dimethyl-1,3-dioxolane

$[\alpha]_D = -8.6$ (*c* 3.0, $CHCl_3$)
Source of chirality: L-(+)-tartaric acid
Absolute configuration: (4*S*,5*S*)

Kavirayani R. Prasad* and Pazhamalai Anbarasan

Tetrahedron: Asymmetry *18 (2007) 1419*



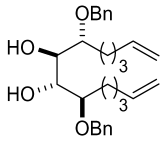
$C_{26}H_{34}O_4$

(5*R*,6*R*,7*R*,8*R*)-5,8-Bis(benzyloxy)dodeca-1,11-diene-6,7-diol

$[\alpha]_D = -24.4$ (*c* 1.8, $CHCl_3$)
Source of chirality: L-(+)-tartaric acid
Absolute configuration: (5*R*,6*R*,7*R*,8*R*)

Kavirayani R. Prasad* and Pazhamalai Anbarasan

Tetrahedron: Asymmetry *18 (2007) 1419*



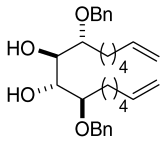
$C_{28}H_{38}O_4$

(6*R*,7*R*,8*R*,9*R*)-6,9-Bis(benzyloxy)tetradeca-1,13-diene-7,8-diol

$[\alpha]_D = -25.8$ (*c* 2.1, $CHCl_3$)
Source of chirality: L-(+)-tartaric acid
Absolute configuration: (6*R*,7*R*,8*R*,9*R*)

Kavirayani R. Prasad* and Pazhamalai Anbarasan

Tetrahedron: Asymmetry *18 (2007) 1419*



$C_{30}H_{42}O_4$

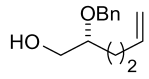
(7*R*,8*R*,9*R*,10*R*)-7,10-Bis(benzyloxy)hexadeca-1,15-diene-8,9-diol

$[\alpha]_D = -27.7$ (*c* 2.7, $CHCl_3$)
Source of chirality: L-(+)-tartaric acid
Absolute configuration: (7*R*,8*R*,9*R*,10*R*)

Kavirayani R. Prasad* and Pazhamalai Anbarasan

Tetrahedron: Asymmetry *18 (2007) 1419*

$[\alpha]_D = -10.8$ (*c* 3.5, $CHCl_3$)
Source of chirality: L-(+)-tartaric acid
Absolute configuration: (2*R*)

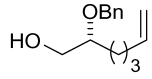


$C_{13}H_{18}O_2$
(*R*)-2-(Benzyloxy)hex-5-en-1-ol

Kavirayani R. Prasad* and Pazhamalai Anbarasan

Tetrahedron: Asymmetry *18 (2007) 1419*

$[\alpha]_D = -12.2$ (*c* 1.8, $CHCl_3$)
Source of chirality: L-(+)-tartaric acid
Absolute configuration: (2*R*)

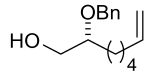


$C_{14}H_{20}O_2$
(*R*)-2-(Benzyloxy)hept-6-en-1-ol

Kavirayani R. Prasad* and Pazhamalai Anbarasan

Tetrahedron: Asymmetry *18 (2007) 1419*

$[\alpha]_D = -14.7$ (*c* 1.9, $CHCl_3$)
Source of chirality: L-(+)-tartaric acid
Absolute configuration: (2*R*)

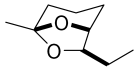


$C_{15}H_{22}O_2$
(*R*)-2-(Benzyloxy)oct-7-en-1-ol

Kavirayani R. Prasad* and Pazhamalai Anbarasan

Tetrahedron: Asymmetry *18 (2007) 1419*

$[\alpha]_D = +66.6$ (*c* 0.3, Et_2O)
Source of chirality: L-(+)-tartaric acid
Absolute configuration: (1*R*,5*S*,7*R*)

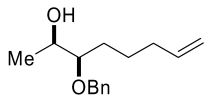


$C_9H_{16}O_2$
(+)-*exo*-Brevicomin: (1*R*,5*S*,7*R*)-7-ethyl-5-methyl-6,8-dioxabicyclo[3.2.1]octane

Kavirayani R. Prasad* and Pazhamalai Anbarasan

Tetrahedron: Asymmetry *18 (2007) 1419*

$[\alpha]_D = -24.3$ (*c* 1.1, $CHCl_3$)
Source of chirality: L-(+)-tartaric acid
Absolute configuration: (2*R*,3*R*)

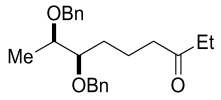


$C_{15}H_{22}O_2$
(2*R*,3*R*)-3-(Benzyloxy)oct-7-en-2-ol

Kavirayani R. Prasad* and Pazhamalai Anbarasan

Tetrahedron: Asymmetry *18 (2007) 1419*

$[\alpha]_D = +9.1$ (*c* 3.2, $CHCl_3$)
Source of chirality: L-(+)-tartaric acid
Absolute configuration: (7*R*,8*R*)

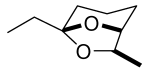


$C_{22}H_{30}O_3$
(7*R*,8*R*)-7,8-Bis(benzyloxy)nonan-3-one

Kavirayani R. Prasad* and Pazhamalai Anbarasan

Tetrahedron: Asymmetry *18 (2007) 1419*

$[\alpha]_D = +54.0$ (*c* 0.5, $CHCl_3$)
Source of chirality: L-(+)-tartaric acid
Absolute configuration: (1*R*,5*S*,7*R*)

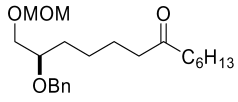


$C_9H_{16}O_2$
iso-exo-Brevicomin: (1*R*,5*S*,7*R*)-5-ethyl-7-methyl-6,8-dioxabicyclo[3.2.1]octane

Kavirayani R. Prasad* and Pazhamalai Anbarasan

Tetrahedron: Asymmetry *18 (2007) 1419*

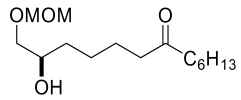
$[\alpha]_D = +13.7$ (*c* 1.6, $CHCl_3$)
Source of chirality: L-(+)-tartaric acid
Absolute configuration: (2*R*)



$C_{22}H_{36}O_4$
(*R*)-2-(Benzyloxy)-1-(methoxymethoxy)tridecan-7-one

Kavirayani R. Prasad* and Pazhamalai Anbarasan

Tetrahedron: Asymmetry *18 (2007) 1419*



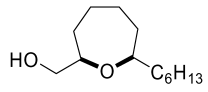
$C_{15}H_{30}O_4$

(*R*)-2-(Hydroxy)-1-(methoxymethoxy)tridecan-7-one

$[\alpha]_D = +15.0$ (*c* 1.4, $CHCl_3$)
Source of chirality: L-(+)-tartaric acid
Absolute configuration: (2*R*)

Kavirayani R. Prasad* and Pazhamalai Anbarasan

Tetrahedron: Asymmetry *18 (2007) 1419*



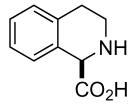
$C_{13}H_{26}O_2$

(2*R*,7*R*)-7-Hexyl-2-(hydroxymethyl)oxepane

$[\alpha]_D = +6.6$ (*c* 1.8, MeOH)
Source of chirality: L-(+)-tartaric acid
Absolute configuration: (2*R*,7*R*)

Tihamér A. Paál, Enikő Forró, Arto Liljeblad, Liisa T. Kanerva and Ferenc Fülöp*

Tetrahedron: Asymmetry *18 (2007) 1428*



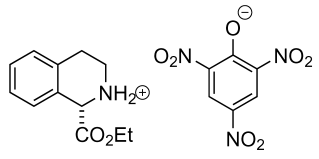
$C_{10}H_{11}NO_2$

(*R*)-1,2,3,4-Tetrahydroisoquinoline-1-carboxylic acid

Ee = 96%
$[\alpha]_D^{25} = -63.1$ (*c* 1, 1 mol dm^{-3} HCl)
$[\alpha]_D^{25} = +18.8$ (*c* 2, 1 mol dm^{-3} NaOH)
Source of chirality: enzyme-catalyzed resolution with lipase B from *Candida antarctica*
Absolute configuration: (*R*)

Tihamér A. Paál, Enikő Forró, Arto Liljeblad, Liisa T. Kanerva and Ferenc Fülöp*

Tetrahedron: Asymmetry *18 (2007) 1428*



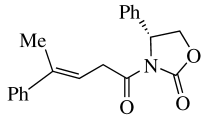
$C_{18}H_{18}N_4O_9$

(*S*)-1-(Ethoxycarbonyl)-1,2,3,4-tetrahydroisoquinolinium 2,4,6-trinitrophenolate

Ee = 92%
$[\alpha]_D^{25} = -28.2$ (*c* 0.5, $CHCl_3$)
$[\alpha]_D^{25} = -30.2$ (*c* 0.5, toluene)
Source of chirality: enzyme-catalyzed resolution with lipase B from *Candida antarctica*
Absolute configuration: (*S*)

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_{20}H_{19}NO_3$

(*R*)-3-((*E*)-4-Phenylpent-3-enoyl)-4-phenyloxazolidin-2-one

Ee = 100%

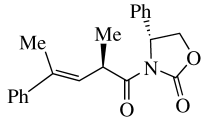
$[\alpha]_D^{25} = -85.9$ (*c* 1.6, CH_2Cl_2)

Source of chirality: enantiomerically pure starting material

Absolute configuration: (*R*)

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_{21}H_{21}NO_3$

(*R*)-3-((*R*,*E*)-2-Methyl-4-phenylpent-3-enoyl)-4-phenyloxazolidin-2-one

Ee = 100%

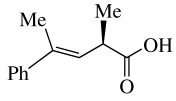
$[\alpha]_D^{20} = -149.0$ (*c* 0.96, CH_2Cl_2)

Source of chirality: diastereoselective alkylation

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

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_{12}H_{14}O_2$

(*R*,*E*)-2-Methyl-4-phenylpent-3-enoic acid

Ee = 100%

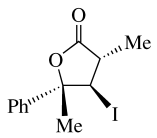
$[\alpha]_D^{20} = -53.1$ (*c* 1.15, CH_2Cl_2)

Source of chirality: enantiomerically pure starting material

Absolute configuration: (*R*)

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_{12}H_{13}IO_2$

(3*S*,4*R*,5*S*)-Dihydro-4-iodo-3,5-dimethyl-5-phenylfuran-2(3*H*)-one

Ee = 100%

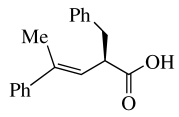
$[\alpha]_D^{20} = -45.9$ (*c* 0.90, CH_2Cl_2)

Source of chirality: diastereospecific iodo lactonization

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

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_{18}H_{18}O_2$

(*R*,*E*)-2-Benzyl-4-phenylpent-3-enoic acid

Ee = 100%

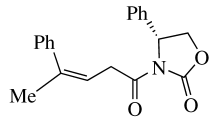
$[\alpha]_D^{20} = -154.1$ (*c* 1.08, CH_2Cl_2)

Source of chirality: enantiomerically pure starting material

Absolute configuration: (*R*)

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_{20}H_{19}NO_3$

(*R*)-3-((*Z*)-4-Phenylpent-3-enoyl)-4-phenyloxazolidin-2-one

Ee = 100%

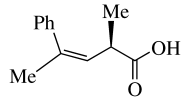
$[\alpha]_D^{20} = -30.7$ (*c* 1.2, CH_2Cl_2)

Source of chirality: enantiomerically pure starting material

Absolute configuration: (*R*)

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_{12}H_{14}O_2$

(*R*,*Z*)-2-Methyl-4-phenylpent-3-enoic acid

Ee = 100%

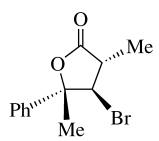
$[\alpha]_D^{20} = -252.8$ (*c* 1.2, CH_2Cl_2)

Source of chirality: diastereoselective alkylation

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

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_{12}H_{13}BrO_2$

(3*S*,4*R*,5*S*)-4-Bromo-dihydro-3,5-dimethyl-5-phenylfuran-2(3*H*)-one

Ee = 100%

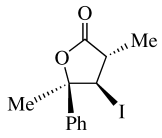
$[\alpha]_D^{20} = -25.4$ (*c* 3, CH_2Cl_2)

Source of chirality: diastereospecific bromo lactonization

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

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_{12}H_{13}IO_2$

(3*S*,4*R*,5*R*)-Dihydro-4-iodo-3,5-dimethyl-5-phenylfuran-2(3*H*)-one

Ee = 100%

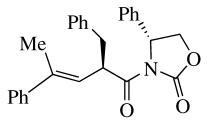
$[\alpha]_D^{20} = -66.3$ (*c* 0.9, CH_2Cl_2)

Source of chirality: diastereospecific iodo lactonization

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

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_{27}H_{25}NO_3$

(*R*)-3-((*R*,*E*)-2-Benzyl-4-phenylpent-3-enoyl)-4-phenyloxazolidin-2-one

Ee = 100%

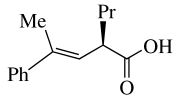
$[\alpha]_D^{20} = -196.8$ (*c* 1.33, CH_2Cl_2)

Source of chirality: diastereoselective alkylation

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

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_{14}H_{18}O_2$

(*R*,*E*)-4-Phenyl-2-propylpent-3-enoic acid

Ee = 100%

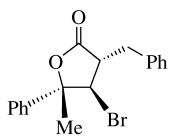
$[\alpha]_D^{20} = -54.8$ (*c* 1.98, CH_2Cl_2)

Source of chirality: enantiomerically pure starting material

Absolute configuration: (*R*)

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_{18}H_{17}BrO_2$

(3*S*,4*R*,5*S*)-3-Benzyl-4-bromo-dihydro-5-methyl-5-phenylfuran-2(3*H*)-one

Ee = 100%

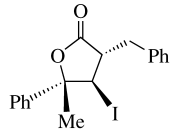
$[\alpha]_D^{20} = -11.0$ (*c* 1.07, CH_2Cl_2)

Source of chirality: diastereospecific bromo lactonization

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

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_{18}H_{17}IO_2$

(3*S*,4*R*,5*S*)-3-Benzyl-4-iodo-dihydro-5-methyl-5-phenylfuran-2(3*H*)-one

Ee = 100%

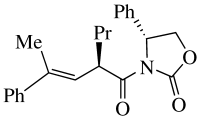
$[\alpha]_D^{20} = +4.2$ (*c* 1.25, CH_2Cl_2)

Source of chirality: diastereospecific iodo lactonization

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

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_{23}H_{25}NO_3$

(*R*)-3-((*R*,*E*)-4-Phenyl-2-propylpent-3-enoyl)-4-phenyloxazolidin-2-one

Ee = 100%

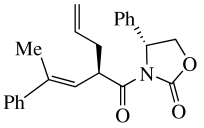
$[\alpha]_D^{20} = -128.1$ (*c* 0.99, CH_2Cl_2)

Source of chirality: diastereoselective alkylation

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

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_{23}H_{23}NO_3$

(*R*)-3-(2-((*E*)-2-Phenylprop-1-enyl)pent-4-enoyl)-4-phenyloxazolidin-2-one

Ee = 100%

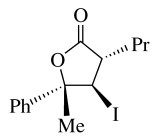
$[\alpha]_D^{20} = -151.0$ (*c* 1.1, CH_2Cl_2)

Source of chirality: diastereoselective alkylation

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

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_{14}H_{17}IO_2$

(3*S*,4*R*,5*S*)-Dihydro-4-iodo-5-methyl-5-phenyl-3-propylfuran-2(3*H*)-one

Ee = 100%

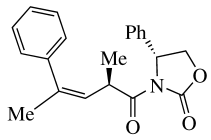
$[\alpha]_D^{20} = -18.9$ (*c* 0.75, CH_2Cl_2)

Source of chirality: diastereospecific iodo lactonization

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

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_{21}H_{21}NO_3$

(*R*)-3-((*R*,*Z*)-2-Methyl-4-phenylpent-3-enoyl)-4-phenyloxazolidin-2-one

Ee = 100%

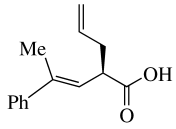
$[\alpha]_D^{20} = -100.3$ (*c* 0.5, CH_2Cl_2)

Source of chirality: diastereoselective alkylation

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

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_{14}H_{16}O_2$

(*R*)-2-((*E*)-2-Phenylprop-1-enyl)pent-4-enoic acid

Ee = 100%

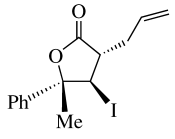
$[\alpha]_D^{20} = -80.2$ (*c* 2.1, CH_2Cl_2)

Source of chirality: enantiomerically pure starting material

Absolute configuration: (*R*)

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_{14}H_{15}IO_2$

(3*S*,4*R*,5*S*)-3-Allyl-dihydro-4-iodo-5-methyl-5-phenylfuran-2(3*H*)-one

Ee = 100%

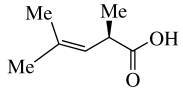
$[\alpha]_D^{20} = -30.1$ (*c* 0.9, CH_2Cl_2)

Source of chirality: diastereospecific iodo lactonization

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

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_7H_{12}O_2$

(*R*)-2,4-Dimethylpent-3-enoic acid

Ee = 100%

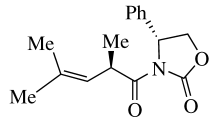
$[\alpha]_D^{20} = -310.0$ (*c* 2.0, CH_2Cl_2)

Source of chirality: enantiomerically pure starting material

Absolute configuration: (*R*)

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_{16}H_{19}NO_3$

(*R*)-3-((*R*)-2,4-Dimethylpent-3-enoyl)-4-phenyloxazolidin-2-one

Ee = 100%

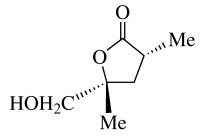
$[\alpha]_D^{20} = -157.0$ (*c* 2.0, CH_2Cl_2)

Source of chirality: diastereoselective alkylation

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

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_7H_{12}O_3$

(3*R*,5*R*)-Dihydro-5-(hydroxymethyl)-3,5-dimethylfuran-2(3*H*)-one

Ee = 100%

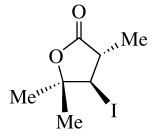
$[\alpha]_D^{20} = -4.9$ (*c* 0.90, EtOH)

Source of chirality: enantiomerically pure starting material

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

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_7H_{11}IO_2$

(3*S*,4*R*)-Dihydro-4-iodo-3,5,5-trimethylfuran-2(3*H*)-one

Ee = 100%

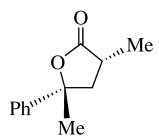
$[\alpha]_D^{20} = -16.7$ (*c* 2.0, CH_2Cl_2)

Source of chirality: diastereospecific iodo lactonization

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

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_{12}H_{14}O_2$

(3*R*,5*R*)-Dihydro-3,5-dimethyl-5-phenylfuran-2(3*H*)-one

Ee = 100%

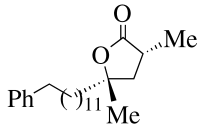
$[\alpha]_D^{20} = -32.0$ (*c* 0.33, CH_2Cl_2)

Source of chirality: enantiomerically pure starting material

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

Jean-Marc Garnier, Sylvie Robin, Régis Guillot and Gérard Rousseau*

Tetrahedron: Asymmetry *18 (2007) 1434*



$C_{24}H_{38}O_2$

(3*R*,5*S*)-Dihydro-3,5-dimethyl-5-(11-phenylundecyl)furan-2(3*H*)-one

Ee = 100%

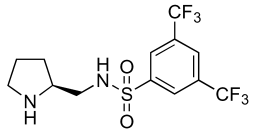
$[\alpha]_D^{20} = -8.5$ (*c* 0.2, MeOH)

Source of chirality: enantiomerically pure starting material

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

Bukuo Ni, Qianying Zhang and Allan D. Headley*

Tetrahedron: Asymmetry *18 (2007) 1443*



$C_{13}H_{15}F_6N_2O_2S$

(*S*)-2-[(2,6-Trifluoromethanebenzenesulfonyl)aminomethyl]pyrrolidine

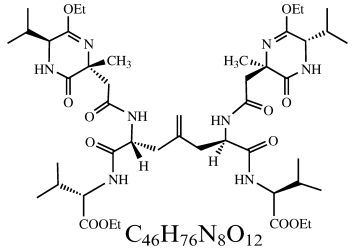
$[\alpha]_D^{20} = -10$ (*c* 0.30, MeOH)

Source of chirality: (*S*)-2-aminomethylpyrrolidine

Absolute configuration: (2*S*)

Daniele Balducci, Andrea Bottoni, Matteo Calvaresi, Gianni Porzi* and Sergio Sandri*

Tetrahedron: Asymmetry *18 (2007) 1448*



$C_{46}H_{76}N_8O_{12}$

(2*S*,5*R*,9*R*,12*S*,2′*R*,6′*S*)-5,9-Bis-*N*-(6′-ethoxy-2′,3′,4′,5′-tetrahydro-5′-isopropyl-2′-methyl-3′-oxopyrazin-2′-yl-acetyl)-3,11-diaza-2,12-diisopropyl-4,10-dioxa-7-methylentridecane-1,13-dicarboxylic acid diethylester

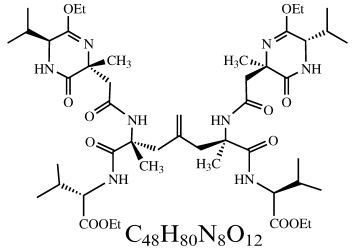
$[\alpha]_D = -28$ (*c* 2.1, $CHCl_3$)

Source of chirality: L-valine

Absolute configuration: (2*S*,5*R*,9*R*,12*S*,2′*R*,6′*S*)

Daniele Balducci, Andrea Bottoni, Matteo Calvaresi, Gianni Porzi* and Sergio Sandri*

Tetrahedron: Asymmetry *18 (2007) 1448*



$C_{48}H_{80}N_8O_{12}$

(2*S*,5*R*,9*R*,12*S*,2′*R*,6′*S*)-5,9-bis-*N*-(6′-ethoxy-2′,3′,4′,5′-tetrahydro-5′-isopropyl-2′-methyl-3′-oxopyrazin-2′-yl-acetyl)-5,9-dimethyl-3,11-diaza-2,12-diisopropyl-4,10-dioxa-7-methylentridecane-1,13-dicarboxylic acid diethylester

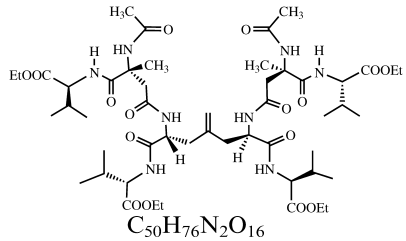
$[\alpha]_D = +10.2$ (*c* 1, $CHCl_3$)

Source of chirality: L-valine

Absolute configuration: (2*S*,5*R*,9*R*,12*S*,2′*R*,6′*S*)

Daniele Balducci, Andrea Bottoni, Matteo Calvaresi, Gianni Porzi* and Sergio Sandri*

Tetrahedron: Asymmetry *18 (2007) 1448*



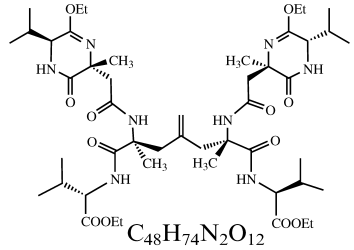
$C_{50}H_{76}N_2O_{16}$

$[\alpha]_D = +67$ (c 0.7, $CHCl_3$)
Source of chirality: L-valine
Absolute configuration: (2*S*,5*R*,9*R*,12*S*,3′*R*,6′*S*)

(2*S*,5*R*,9*R*,12*S*,3′*R*,6′*S*)-5,9-bis-*N*-(3′-methyl-6′-ethoxycarbonil-5′-aza-4′-oxa-3′-acetamido-octanoyl)-3,11-diaza-2,12-diisopropyl-4,10-dioxa-7-methylentridecane-1,13-dicarboxylic acid diethylester

Daniele Balducci, Andrea Bottoni, Matteo Calvaresi, Gianni Porzi* and Sergio Sandri*

Tetrahedron: Asymmetry *18 (2007) 1448*



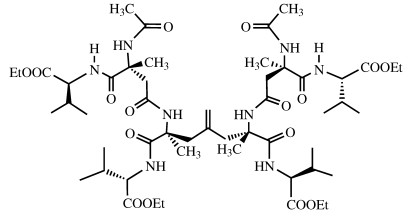
$C_{48}H_{74}N_2O_{12}$

$[\alpha]_D = -10.6$ (c 1.5, $CHCl_3$)
Source of chirality: L-valine
Absolute configuration: (2*S*,5*S*,9*S*,12*S*,2′*R*,6′*S*)

(2*S*,5*S*,9*S*,12*S*,2′*R*,6′*S*)-5,9-bis-*N*-(6′-ethoxy-2′,3′,4′,5′-tetrahydro-5′-isopropyl-2′-methyl-3′-oxopyrazin-2′-yl-acetyl)-5,9-dimethyl-3,11-diaza-2,12-diisopropyl-4,10-dioxa-7-methylentridecane-1,13-dicarboxylic acid diethylester

Daniele Balducci, Andrea Bottoni, Matteo Calvaresi, Gianni Porzi* and Sergio Sandri*

Tetrahedron: Asymmetry *18 (2007) 1448*



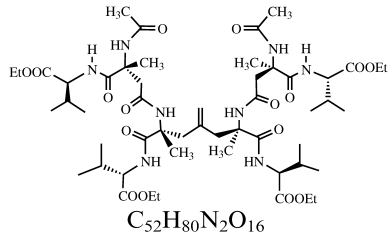
$C_{52}H_{80}N_2O_{16}$

$[\alpha]_D = +36.2$ (c 0.6, $CHCl_3$)
Source of chirality: L-valine
Absolute configuration: (2*S*,5*S*,9*S*,12*S*,3′*R*,6′*S*)

(2*S*,5*S*,9*S*,12*S*,3′*R*,6′*S*)-5,9-bis-*N*-(3′-methyl-6′-ethoxycarbonil-5′-aza-4′-oxa-3′-acetamido-octanoyl)-5,9-dimethyl-3,11-diaza-2,12-diisopropyl-4,10-dioxa-7-methylentridecane-1,13-dicarboxylic acid diethylester

Daniele Balducci, Andrea Bottoni, Matteo Calvaresi, Gianni Porzi* and Sergio Sandri*

Tetrahedron: Asymmetry *18 (2007) 1448*



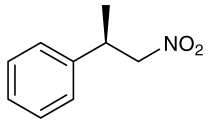
$C_{52}H_{80}N_2O_{16}$

$[\alpha]_D = +15.8$ (c 0.4, $CHCl_3$)
Source of chirality: L-valine
Absolute configuration: (2*S*,5*R*,9*R*,12*S*,3′*R*,6′*S*)

(2*S*,5*R*,9*R*,12*S*,3′*R*,6′*S*)-5,9-bis-*N*-(3′-methyl-6′-ethoxycarbonil-5′-aza-4′-oxa-3′-acetamido-octanoyl)-5,9-dimethyl-3,11-diaza-2,12-diisopropyl-4,10-dioxa-7-methylentridecane-1,13-dicarboxylic acid diethylester

Marcin Zagozda and Jan Plenkiewicz*

Tetrahedron: Asymmetry *18 (2007) 1457*



$C_9H_{11}NO_2$

(*R*)-(+)-2-Nitro-1-phenylpropane

Ee = 98%

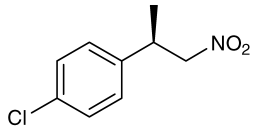
$[\alpha]_D^{30} = +42.0$ (*c* 1.91 $CHCl_3$)

Source of chirality: microbial reduction

Absolute configuration: (*R*)

Marcin Zagozda and Jan Plenkiewicz*

Tetrahedron: Asymmetry *18 (2007) 1457*



$C_9H_{10}ClNO_2$

(*R*)-(+)-2-Nitro-1-(4-chlorophenyl)propane

Ee = 91%

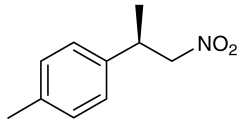
$[\alpha]_D^{31} = +37.0$ (*c* 2.11 $CHCl_3$)

Source of chirality: microbial reduction

Absolute configuration: (*R*)

Marcin Zagozda and Jan Plenkiewicz*

Tetrahedron: Asymmetry *18 (2007) 1457*



$C_{10}H_{13}NO_2$

(*R*)-(+)-2-Nitro-1-(4-methylphenyl)propane

Ee = 97%

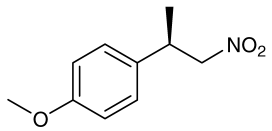
$[\alpha]_D^{27} = +39.2$ (*c* 2.01 $CHCl_3$)

Source of chirality: microbial reduction

Absolute configuration: (*R*)

Marcin Zagozda and Jan Plenkiewicz*

Tetrahedron: Asymmetry *18 (2007) 1457*



$C_{10}H_{13}NO_3$

(*R*)-(+)-2-Nitro-1-(4-methoxyphenyl)propane

Ee = 99%

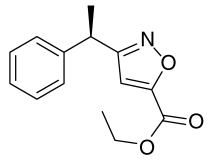
$[\alpha]_D^{28} = +43.7$ (*c* 1.02 $CHCl_3$)

Source of chirality: microbial reduction

Absolute configuration: (*R*)

Marcin Zagozda and Jan Plenkiewicz*

Tetrahedron: Asymmetry *18 (2007) 1457*



$C_{14}H_{15}NO_3$

(−)-Ethyl 3-[(1*R*)-1-phenylethyl]isoxazole-5-carboxylate

Ee = 98%

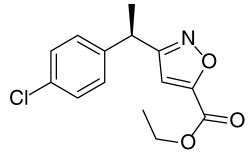
$[\alpha]_D^{28} = -36.6$ (*c* 0.63 $CHCl_3$)

Source of chirality: chiral substrate

Absolute configuration: (*R*)

Marcin Zagozda and Jan Plenkiewicz*

Tetrahedron: Asymmetry *18 (2007) 1457*



$C_{14}H_{14}ClNO_3$

(−)-Ethyl 3-[(1*R*)-1-(4-chlorophenyl)ethyl]isoxazole-5-carboxylate

Ee = 91%

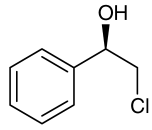
$[\alpha]_D^{28} = -27.7$ (*c* 1.08 $CHCl_3$)

Source of chirality: chiral substrate

Absolute configuration: (*R*)

Marcin Zagozda and Jan Plenkiewicz*

Tetrahedron: Asymmetry *18 (2007) 1457*



C_8H_9ClO

(*R*)-(−)-2-Chloro-1-phenylethanol

Ee = 95%

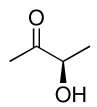
$[\alpha]_D^{23} = -51.4$ (*c* 1.02 $CHCl_3$)

Source of chirality: kinetic resolution

Absolute configuration: (*R*)

Bettina M. Nestl, Anne Bodlenner, Rainer Stuermer, Bernhard Hauer, Wolfgang Kroutil and Kurt Faber*

Tetrahedron: Asymmetry *18 (2007) 1465*



$C_4H_8O_2$

(*R*)-3-Hydroxy-butan-2-one

Ee >99%

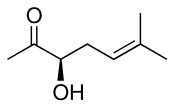
$[\alpha]_D^{20} = -61.4$ (*c* 0.2, EtOH)

Source of chirality: lipase catalyzed kinetic resolution

Absolute configuration: (*R*)

Bettina M. Nestl, Anne Bodlenner, Rainer Stuermer, Bernhard Hauer, Wolfgang Kroutil and Kurt Faber*

Tetrahedron: Asymmetry *18 (2007) 1465*



$C_8H_{14}O_2$

(*R*)-3-Hydroxy-6-methyl-5-hepten-2-one

Ee >99%

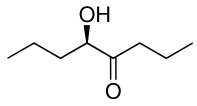
$[\alpha]_D^{20} = +3.8$ (*c* 1.0, $CHCl_3$)

Source of chirality: lipase catalyzed kinetic resolution

Absolute configuration: (*R*)

Bettina M. Nestl, Anne Bodlenner, Rainer Stuermer, Bernhard Hauer, Wolfgang Kroutil and Kurt Faber*

Tetrahedron: Asymmetry *18 (2007) 1465*



$C_8H_{16}O_2$

(*R*)-5-Hydroxyoctan-4-one

Ee >99%

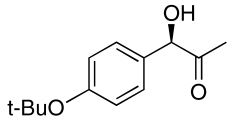
$[\alpha]_D^{20} = -13.8$ (*c* 0.5, $CHCl_3$)

Source of chirality: lipase catalyzed kinetic resolution

Absolute configuration: (*R*)

Bettina M. Nestl, Anne Bodlenner, Rainer Stuermer, Bernhard Hauer, Wolfgang Kroutil and Kurt Faber*

Tetrahedron: Asymmetry *18 (2007) 1465*



$C_{13}H_{18}O_3$

(*R*)-1-Hydroxy-1-(4-*t*-butoxyphenyl)propan-2-one

Ee >99%

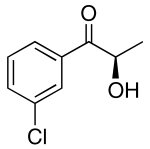
$[\alpha]_D^{20} = -49.3$ (*c* 1.8, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*)

Bettina M. Nestl, Anne Bodlenner, Rainer Stuermer, Bernhard Hauer, Wolfgang Kroutil and Kurt Faber*

Tetrahedron: Asymmetry *18 (2007) 1465*



$C_5H_9ClO_2$

(*R*)-1-(3-Chlorophenyl)-2-hydroxypropan-1-one

Ee >99%

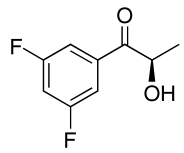
$[\alpha]_D^{20} = +72.8$ (*c* 1.0, $CHCl_3$)

Source of chirality: lipase catalyzed kinetic resolution

Absolute configuration: (*R*)

Bettina M. Nestl, Anne Bodlenner, Rainer Stuermer, Bernhard Hauer, Wolfgang Kroutil and Kurt Faber*

Tetrahedron: Asymmetry *18 (2007) 1465*



$C_9H_8F_2O_2$

(*R*)-1-(3′,5′-Difluorophenyl)-2-hydroxypropan-1-one

Ee >99%

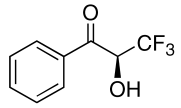
$[\alpha]_D^{20} = +50.0$ (*c* 1.0, $CHCl_3$)

Source of chirality: lipase catalyzed kinetic resolution

Absolute configuration: (*R*)

Bettina M. Nestl, Anne Bodlenner, Rainer Stuermer, Bernhard Hauer, Wolfgang Kroutil and Kurt Faber*

Tetrahedron: Asymmetry *18 (2007) 1465*



$C_9H_7O_2F_3$

(*S*)-3,3,3-Trifluoro-2-hydroxy-1-phenylpropan-1-one

Ee >99%

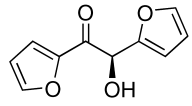
$[\alpha]_D^{20} = +8.6$ (*c* 0.2, $CHCl_3$)

Source of chirality: lipase catalyzed kinetic resolution

Absolute configuration: (*S*)

Bettina M. Nestl, Anne Bodlenner, Rainer Stuermer, Bernhard Hauer, Wolfgang Kroutil and Kurt Faber*

Tetrahedron: Asymmetry *18 (2007) 1465*



$C_{10}H_8O_4$

(*R*)-α-Furoin

Ee >99%

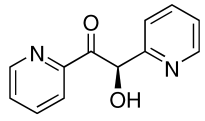
$[\alpha]_D^{20} = +62.7$ (*c* 0.9, $CHCl_3$)

Source of chirality: lipase catalyzed kinetic resolution

Absolute configuration: (*R*)

Bettina M. Nestl, Anne Bodlenner, Rainer Stuermer, Bernhard Hauer, Wolfgang Kroutil and Kurt Faber*

Tetrahedron: Asymmetry *18 (2007) 1465*



$C_{12}H_{10}N_2O_2$

(*R*)-α-Pyridoin

Ee >99%

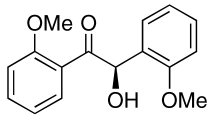
$[\alpha]_D^{20} = +78.8$ (*c* 0.8, $CHCl_3$)

Source of chirality: lipase catalyzed kinetic resolution

Absolute configuration: (*R*)

Bettina M. Nestl, Anne Bodlenner, Rainer Stuermer, Bernhard Hauer, Wolfgang Kroutil and Kurt Faber*

Tetrahedron: Asymmetry *18 (2007) 1465*

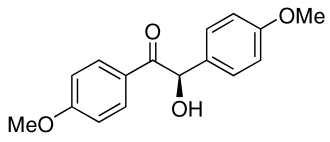


$C_{16}H_{16}O_4$
(*R*)-2,2′-Dimethoxybenzoin

Ee >99%
$[\alpha]_D^{20} = -70.4$ (*c* 1.0, $CHCl_3$)
Source of chirality: lipase catalyzed kinetic resolution
Absolute configuration: (*R*)

Bettina M. Nestl, Anne Bodlenner, Rainer Stuermer, Bernhard Hauer, Wolfgang Kroutil and Kurt Faber*

Tetrahedron: Asymmetry *18 (2007) 1465*

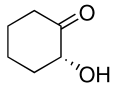


$C_{16}H_{16}O_4$
(*R*)-4,4′-Dimethoxybenzoin

Ee >99%
$[\alpha]_D^{20} = -87.9$ (*c* 1.3, $CHCl_3$)
Source of chirality: lipase catalyzed kinetic resolution
Absolute configuration: (*R*)

Bettina M. Nestl, Anne Bodlenner, Rainer Stuermer, Bernhard Hauer, Wolfgang Kroutil and Kurt Faber*

Tetrahedron: Asymmetry *18 (2007) 1465*

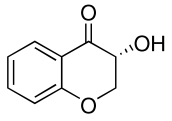


$C_6H_{10}O_2$
(*R*)-2- Hydroxycyclohexanone

Ee >99%
$[\alpha]_D^{20} = +20.8$ (*c* 0.65, $CHCl_3$)
Source of chirality: lipase catalyzed kinetic resolution
Absolute configuration: (*R*)

Bettina M. Nestl, Anne Bodlenner, Rainer Stuermer, Bernhard Hauer, Wolfgang Kroutil and Kurt Faber*

Tetrahedron: Asymmetry *18 (2007) 1465*

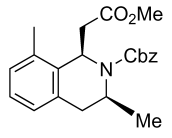


$C_9H_8O_3$
(*R*)-2-Hydroxychroman-4-one

Ee = 82%
$[\alpha]_D^{20} = +72.9$ (*c* 0.82, $CHCl_3$)
Source of chirality: lipase catalyzed kinetic resolution
Absolute configuration: (*R*)

Raffaella Ferraccioli,* Clelia Giannini and Giorgio Molteni

Tetrahedron: Asymmetry *18 (2007) 1475*



$C_{22}H_{25}NO_4$

$[\alpha]_D^{20} = +18.1$ (c 0.93, MeOH)

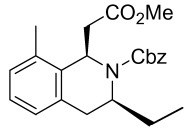
Source of chirality: [1-(*S*)-methyl-2-bromo]ethyl carbamic acid benzyl ester

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

(1*R*,3*S*)-1-Methoxycarbonylmethyl-3,8-dimethyl-1,2,3,4-tetrahydroisoquinoline-2-carboxylic acid benzyl ester

Raffaella Ferraccioli,* Clelia Giannini and Giorgio Molteni

Tetrahedron: Asymmetry *18 (2007) 1475*



$C_{23}H_{27}NO_4$

$[\alpha]_D^{20} = -0.8$ (c 1.16, MeOH)

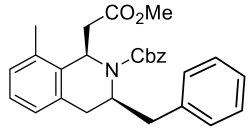
Source of chirality: [1-(*R*)-ethyl-2-bromo]ethyl carbamic acid benzyl ester

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

(1*S*,3*R*)-3-Ethyl-1-methoxycarbonylmethyl-8-methyl-1,2,3,4-tetrahydroisoquinoline-2-carboxylic acid benzyl ester

Raffaella Ferraccioli,* Clelia Giannini and Giorgio Molteni

Tetrahedron: Asymmetry *18 (2007) 1475*



$C_{28}H_{29}NO_4$

$[\alpha]_D^{20} = -40.9$ (c 1.00, MeOH)

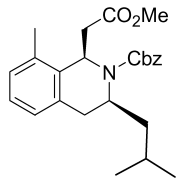
Source of chirality: [1-(*S*)-benzyl-2-bromo]ethyl carbamic acid benzyl ester

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

(1*R*,3*S*)-3-Benzyl-1-methoxycarbonylmethyl-8-methyl-1,2,3,4-tetrahydroisoquinoline-2-carboxylic acid benzyl ester

Raffaella Ferraccioli,* Clelia Giannini and Giorgio Molteni

Tetrahedron: Asymmetry *18 (2007) 1475*



$C_{25}H_{31}NO_4$

$[\alpha]_D^{20} = +15.3$ (c 0.98, MeOH)

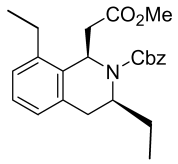
Source of chirality: [1-(*S*)-*i*-Bu-2-bromo]ethyl carbamic acid benzyl ester

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

(1*R*,3*S*)-3-Isobutyl-1-methoxycarbonylmethyl-8-methyl-1,2,3,4-tetrahydroisoquinoline-2-carboxylic acid benzyl ester

Raffaella Ferraccioli,* Clelia Giannini and Giorgio Molteni

Tetrahedron: Asymmetry *18 (2007) 1475*

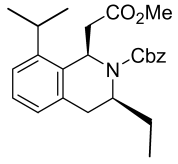


$[\alpha]_D^{20} = -9.8$ (*c* 1.0, MeOH)
Source of chirality: [1-(*R*)-ethyl-2-bromo]ethyl carbamic acid benzyl ester
Absolute configuration: (1*S*,3*R*)

$C_{24}H_{29}NO_4$
(1*S*,3*R*)-3,8-Ethyl-1-methoxycarbonylmethyl-1,2,3,4-tetrahydroisoquinoline-2-carboxylic acid benzyl ester

Raffaella Ferraccioli,* Clelia Giannini and Giorgio Molteni

Tetrahedron: Asymmetry *18 (2007) 1475*

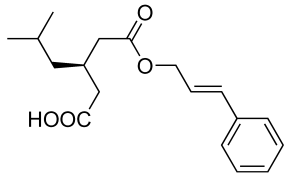


$[\alpha]_D^{20} = -9.2$ (*c* 1.2, MeOH)
Source of chirality: [1-(*R*)-ethyl-2-bromo]ethyl carbamic acid benzyl ester
Absolute configuration: (1*S*,3*R*)

$C_{25}H_{31}NO_4$
(1*S*,3*R*)-3-Ethyl-8-isopropyl-1-methoxycarbonylmethyl-1,2,3,4-tetrahydroisoquinoline-2-carboxylic acid benzyl ester

Zdenko Hameršak,* Irena Stipetić and Amir Avdagić

Tetrahedron: Asymmetry *18 (2007) 1481*

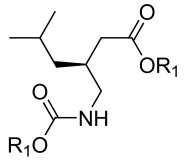


Ee = 97%
$[\alpha]_D^{25} = -0.53$ (neat)
Source of chirality: asymmetric synthesis
Absolute configuration: (*R*)

$C_{18}H_{24}O_4$
(*R*)-3-Isobutyl-pentanedioic acid mono-(3-phenyl-allyl) ester

Zdenko Hameršak,* Irena Stipetić and Amir Avdagić

Tetrahedron: Asymmetry *18 (2007) 1481*

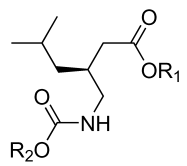


Ee = 97%
$[\alpha]_D^{25} = -4.3$ (*c* 20, EtOH)
Source of chirality: asymmetric synthesis
Absolute configuration: (*S*)

$C_{27}H_{33}NO_4$
(*S*)-5-Methyl-3-[(3-phenyl-allyloxycarbonilamino)-methyl]-hexanoic acid 3-phenyl-allyl ester

Zdenko Hameršak,* Irena Stipetić and Amir Avdagić

Tetrahedron: Asymmetry *18 (2007) 1481*

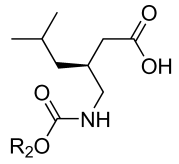


Ee = 97%
$[\alpha]_D^{25} = -4.2$ (*c* 20, EtOH)
Source of chirality: asymmetric synthesis
Absolute configuration: (*S*)

$C_{25}H_{31}NO_4$
(*S*)-3-(Benzyloxycarbonylamino-methyl)-5-methyl-hexanoic acid 3-phenyl-allyl ester

Zdenko Hameršak,* Irena Stipetić and Amir Avdagić

Tetrahedron: Asymmetry *18 (2007) 1481*

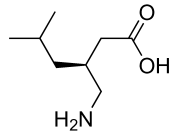


Ee = 97%
$[\alpha]_D^{25} = -4.4$ (*c* 25, EtOH)
Source of chirality: asymmetric synthesis
Absolute configuration: (*S*)

$C_{16}H_{23}NO_4$
(*S*)-3-(Benzyloxycarbonylamino-methyl)-5-methyl-hexanoic acid

Zdenko Hameršak,* Irena Stipetić and Amir Avdagić

Tetrahedron: Asymmetry *18 (2007) 1481*

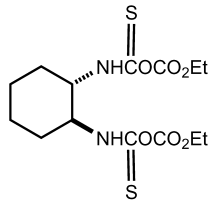


Ee = 99.7%
$[\alpha]_D^{25} = +10.8$ (*c* 1.1, H_2O)
Source of chirality: asymmetric synthesis
Absolute configuration: (*S*)

$C_8H_{17}NO_2$
(*S*)-3-Aminomethyl-5-methyl-hexanoic acid

Barbara Piotrkowska, Maria J. Milewska, Maria Gdaniec and Tadeusz Połoński*

Tetrahedron: Asymmetry *18 (2007) 1486*

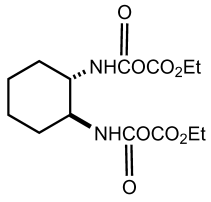


$[\alpha]_D^{22} = -442$ (*c* 0.052, $CHCl_3$)
Source of chirality: (1*S*,2*S*)-(+)-1,2-diaminocyclohexane
Absolute configuration: (1*S*,2*S*)

$C_{14}H_{22}N_2O_4S_2$
(1*S*,2*S*)-*N*,*N*′-1,2-Cyclohexanediyl-bis-thiooxalamic acid diethyl ester

Barbara Piotrkowska, Maria J. Milewska, Maria Gdaniec and Tadeusz Połoński*

Tetrahedron: Asymmetry *18 (2007) 1486*



$C_{14}H_{22}N_2O_6$

(1*S*,2*S*)-*N*,*N*′-1,2-Cyclohexanediyl-bis-oxalamic acid diethyl ester

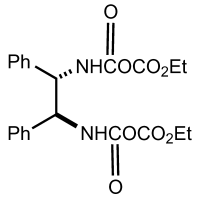
$[\alpha]_D^{22} = -31$ (*c* 1.168, $CHCl_3$)

Source of chirality: (1*S*,2*S*)-(+)-1,2-diaminocyclohexane

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

Barbara Piotrkowska, Maria J. Milewska, Maria Gdaniec and Tadeusz Połoński*

Tetrahedron: Asymmetry *18 (2007) 1486*



$C_{22}H_{24}N_2O_6$

(1*R*,2*R*)-*N*,*N*′-1,2-Diphenylethanediyl-bis-oxalamic acid diethyl ester

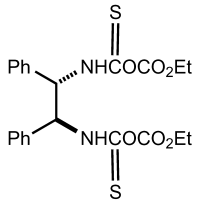
$[\alpha]_D^{22} = -103.8$ (*c* 0.106, $CHCl_3$)

Source of chirality: (1*R*,2*R*)-(+)-1,2-diphenylethylenediamine

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

Barbara Piotrkowska, Maria J. Milewska, Maria Gdaniec and Tadeusz Połoński*

Tetrahedron: Asymmetry *18 (2007) 1486*



$C_{22}H_{24}N_2O_4S_2$

(1*R*,2*R*)-*N*,*N*′-1,2-Diphenylethanediyl-bis-thiooxalamic acid diethyl ester

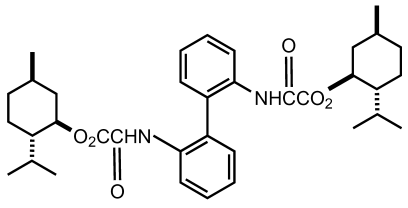
$[\alpha]_D^{22} = -155.6$ (*c* 0.045, $CHCl_3$)

Source of chirality: (1*R*,2*R*)-(+)-1,2-diphenylethylenediamine

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

Barbara Piotrkowska, Maria J. Milewska, Maria Gdaniec and Tadeusz Połoński*

Tetrahedron: Asymmetry *18 (2007) 1486*



$C_{36}H_{48}N_2O_6$

N,*N*′-Biphenyl-2,2′-diyl-bis-oxalamic acid dimenthyl ester

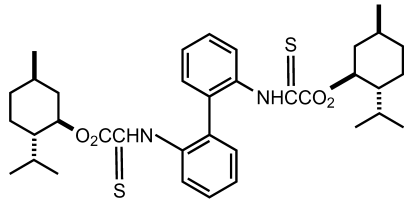
$[\alpha]_D^{20} = -82.8$ (*c* 0.169, $CHCl_3$)

Source of chirality: (1*R*,2*S*,5*R*)-menthol

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

Barbara Piotrkowska, Maria J. Milewska, Maria Gdaniec and Tadeusz Połoński*

Tetrahedron: Asymmetry *18 (2007) 1486*



$C_{36}H_{48}N_2O_4S_2$

N,*N*′-Biphenyl-2,2′-diyl-bis-thiooxalamic acid dimenthyl ester

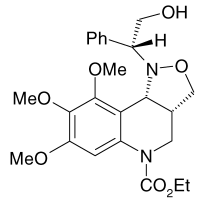
$[\alpha]_D^{20} = -150$ (*c* 0.04, $CHCl_3$)

Source of chirality: (1*R*,2*S*,5*R*)-menthol

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

Gianluigi Broggini,* Francesco Colombo, Ivan De Marchi, Simona Galli, Michela Martinelli and Gaetano Zecchi

Tetrahedron: Asymmetry *18 (2007) 1495*



$C_{24}H_{30}N_2O_7$

(α*R*,3a*R*,9b*R*)-5-Carbethoxy-1-(1-phenyl-2-hydroxyethyl)-7,8,9-trimethoxy-1,3a,4,9b-tetrahydro-3*H*-isoxazolo[4,3-*c*]quinoline

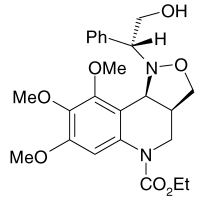
$[\alpha]_D^{23} = -19.5$ (*c* 0.7, $CHCl_3$)

Source of chirality: (*R*)-1-phenyl-2-hydroxyethylhydroxylamine

Absolute configuration: (α*R*,3a*R*,9b*R*)

Gianluigi Broggini,* Francesco Colombo, Ivan De Marchi, Simona Galli, Michela Martinelli and Gaetano Zecchi

Tetrahedron: Asymmetry *18 (2007) 1495*



$C_{24}H_{30}N_2O_7$

(α*R*,3a*S*,9b*S*)-5-Carbethoxy-1-(1-phenyl-2-hydroxyethyl)-7,8,9-trimethoxy-1,3a,4,9b-tetrahydro-3*H*-isoxazolo[4,3-*c*]quinoline

$[\alpha]_D^{23} = -63.5$ (*c* 1.0, $CHCl_3$)

Source of chirality: (*R*)-1-phenyl-2-hydroxyethylhydroxylamine

Absolute configuration: (α*R*,3a*S*,9b*S*)

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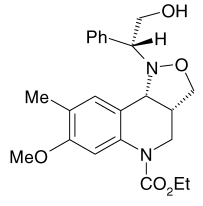
Tetrahedron: Asymmetry *18 (2007) 1495*



$C_{23}H_{28}N_2O_5$

(α*R*,3a*R*,9b*R*)-5-Carbethoxy-1-(1-phenyl-2-hydroxyethyl)-7-methoxy-8-methyl-1,3a,4,9b-tetrahydro-3*H*-isoxazolo[4,3-*c*]quinoline

$[\alpha]_D^{23} = -11.1$ (*c* 0.9, $CHCl_3$)

Source of chirality: (*R*)-1-phenyl-2-hydroxyethylhydroxylamine

Absolute configuration: (α*R*,3a*R*,9b*R*)

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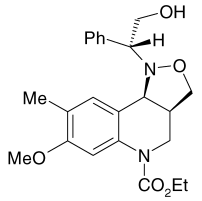
Tetrahedron: Asymmetry *18 (2007) 1495*



$C_{23}H_{28}N_2O_5$

$[\alpha]_D^{23} = -9.3$ (c 0.8, $CHCl_3$)

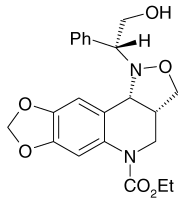
Source of chirality: (*R*)-1-phenyl-2-hydroxyethylhydroxylamine

Absolute configuration: (α*R*,3a*S*,9b*S*)

(α*R*,3a*S*,9b*S*)-5-Carbethoxy-1-(1-phenyl-2-hydroxyethyl)-7-methoxy-8-methyl-1,3a,4,9b-tetrahydro-3*H*-isoxazolo[4,3-*c*]quinoline

Gianluigi Broggini,* Francesco Colombo, Ivan De Marchi, Simona Galli, Michela Martinelli and Gaetano Zecchi

Tetrahedron: Asymmetry *18 (2007) 1495*



$C_{22}H_{24}N_2O_6$

$[\alpha]_D^{23} = -7.9$ (c 1.0, $CHCl_3$)

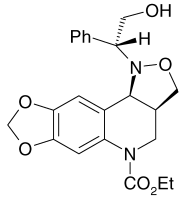
Source of chirality: (*R*)-1-phenyl-2-hydroxyethylhydroxylamine

Absolute configuration: (α*R*,3a*R*,10b*R*)

(α*R*,3a*R*,9b*R*)-5-Carbethoxy-1-(1-phenyl-2-hydroxyethyl)-1,3a,4,10b-tetrahydro-3*H*,8*H*-[1,3]dioxolo[4,5-*g*]isoxazolo[4,3-*c*]quinoline

Gianluigi Broggini,* Francesco Colombo, Ivan De Marchi, Simona Galli, Michela Martinelli and Gaetano Zecchi

Tetrahedron: Asymmetry *18 (2007) 1495*



$C_{22}H_{24}N_2O_6$

$[\alpha]_D^{23} = -7.4$ (c 1.1, $CHCl_3$)

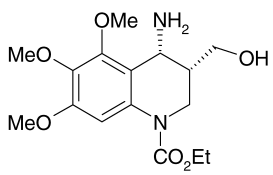
Source of chirality: (*R*)-1-phenyl-2-hydroxyethylhydroxylamine

Absolute configuration: (α*R*,3a*S*,10b*S*)

(α*R*,3a*S*,9b*S*)-5-Carbethoxy-1-(1-phenyl-2-hydroxyethyl)-1,3a,4,10b-tetrahydro-3*H*,8*H*-[1,3]dioxolo[4,5-*g*]isoxazolo[4,3-*c*]quinoline

Gianluigi Broggini,* Francesco Colombo, Ivan De Marchi, Simona Galli, Michela Martinelli and Gaetano Zecchi

Tetrahedron: Asymmetry *18 (2007) 1495*



$C_{16}H_{24}N_2O_6$

$[\alpha]_D^{23} = +23.3$ (c 1.3, $CHCl_3$)

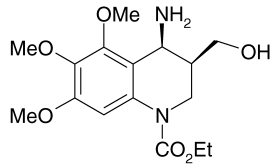
Source of chirality: (*R*)-1-phenyl-2-hydroxyethylhydroxylamine

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

(3*R*,4*R*)-4-Amino-1-carbethoxy-3-hydroxymethyl-5,6,7-trimethoxy-1,2,3,4-tetrahydroquinoline

Gianluigi Broggini,* Francesco Colombo, Ivan De Marchi, Simona Galli, Michela Martinelli and Gaetano Zecchi

Tetrahedron: Asymmetry *18 (2007) 1495*



$C_{16}H_{24}N_2O_6$

$[\alpha]_D^{23} = -22.9$ (c 1.1, $CHCl_3$)

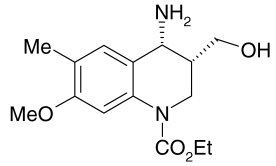
Source of chirality: (*R*)-1-phenyl-2-hydroxyethylhydroxylamine

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

(3*S*,4*S*)-4-Amino-1-carbethoxy-3-hydroxymethyl-5,6,7-trimethoxy-1,2,3,4-tetrahydroquinoline

Gianluigi Broggini,* Francesco Colombo, Ivan De Marchi, Simona Galli, Michela Martinelli and Gaetano Zecchi

Tetrahedron: Asymmetry *18 (2007) 1495*



$C_{15}H_{22}N_2O_4$

$[\alpha]_D^{23} = +29.3$ (c 0.6, $CHCl_3$)

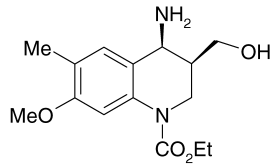
Source of chirality: (*R*)-1-phenyl-2-hydroxyethylhydroxylamine

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

(3*R*,4*R*)-4-Amino-1-carbethoxy-3-hydroxymethyl-7-methoxy-6-methyl-1,2,3,4-tetrahydroquinoline

Gianluigi Broggini,* Francesco Colombo, Ivan De Marchi, Simona Galli, Michela Martinelli and Gaetano Zecchi

Tetrahedron: Asymmetry *18 (2007) 1495*



$C_{15}H_{22}N_2O_4$

$[\alpha]_D^{23} = -29.9$ (c 0.5, $CHCl_3$)

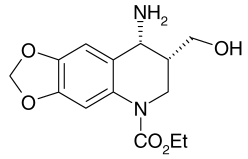
Source of chirality: (*R*)-1-phenyl-2-hydroxyethylhydroxylamine

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

(3*S*,4*S*)-4-Amino-1-carbethoxy-3-hydroxymethyl-7-methoxy-6-methyl-1,2,3,4-tetrahydroquinoline

Gianluigi Broggini,* Francesco Colombo, Ivan De Marchi, Simona Galli, Michela Martinelli and Gaetano Zecchi

Tetrahedron: Asymmetry *18 (2007) 1495*



$C_{14}H_{18}N_2O_5$

$[\alpha]_D^{23} = +25.9$ (c 0.6, $CHCl_3$)

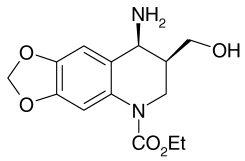
Source of chirality: (*R*)-1-phenyl-2-hydroxyethylhydroxylamine

Absolute configuration: (7*R*,8*R*)

(7*R*,8*R*)-8-Amino-5-carbethoxy-7-hydroxymethyl-5,6,7,8-tetrahydro-[1,3]dioxolo[4,3-*c*]quinoline

Gianluigi Broggini,* Francesco Colombo, Ivan De Marchi, Simona Galli, Michela Martinelli and Gaetano Zecchi

Tetrahedron: Asymmetry *18 (2007) 1495*



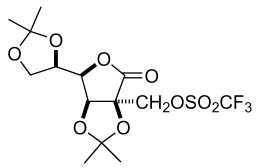
$C_{14}H_{18}N_2O_5$

(7S,8*S*)-8-Amino-5-carbethoxy-7-hydroxymethyl-5,6,7,8-tetrahydro-[1,3]dioxolo[4,3-*c*]quinoline

$[\alpha]_D^{23} = -25.1$ (*c* 0.5, $CHCl_3$)
Source of chirality: (*R*)-1-phenyl-2-hydroxyethylhydroxylamine
Absolute configuration: (7*R*,8*R*)

Daniel A. Mitchell, Nigel A. Jones, Stuart J. Hunter, Joseph M. D. Cook, Sarah F. Jenkinson, Mark R. Wormald, Raymond A. Dwek and George W. J. Fleet*

Tetrahedron: Asymmetry *18 (2007) 1502*



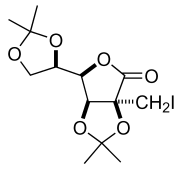
$C_{14}H_{19}F_3O_9S$

2,3:5,6-Di-*O*-isopropylidene-2-*C*-trifluoromethanesulfonyloxymethyl-D-mannono-1,4-lactone

Ee = 100%
$[\alpha]_D^{21} = +22.2$ (*c* 1.0, $CHCl_3$)
Source of chirality: D-fructose as starting material

Daniel A. Mitchell, Nigel A. Jones, Stuart J. Hunter, Joseph M. D. Cook, Sarah F. Jenkinson, Mark R. Wormald, Raymond A. Dwek and George W. J. Fleet*

Tetrahedron: Asymmetry *18 (2007) 1502*



$C_{13}H_{19}IO_6$

2,3:5,6-Di-*O*-isopropylidene-2-*C*-iodomethyl-D-mannono-1,4-lactone

Ee = 100%
$[\alpha]_D^{22} = +31.8$ (*c* 1.1, $CHCl_3$)
Source of chirality: D-fructose as starting material

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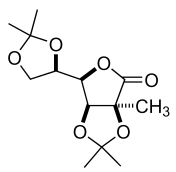
Tetrahedron: Asymmetry *18 (2007) 1502*



$C_{13}H_{20}O_6$

2,3:5,6-Di-*O*-isopropylidene-2-*C*-methyl-D-mannono-1,4-lactone

Ee = 100%
$[\alpha]_D^{22} = +48.8$ (*c* 0.9, $CHCl_3$)
Source of chirality: D-fructose as starting material

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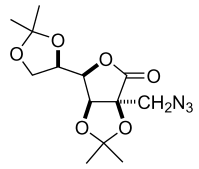
Tetrahedron: Asymmetry *18 (2007) 1502*



$C_{13}H_{19}N_3O_6$

2-*C*-Azidomethyl-2,3:5,6-di-*O*-isopropylidene-D-mannono-1,4-lactone

Ee = 100%

$[\alpha]_D^{22} = -130$ (*c* 0.7, $CHCl_3$)

Source of chirality: D-fructose as starting material

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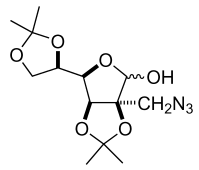
Tetrahedron: Asymmetry *18 (2007) 1502*



$C_{13}H_{21}N_3O_6$

2-*C*-Azidomethyl-2,3:5,6-di-*O*-isopropylidene-D-mannofuranose

Ee = 100%

$[\alpha]_D^{21} = -39$ (*c* 1.0, $CHCl_3$)

Source of chirality: D-fructose as starting material

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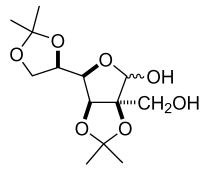
Tetrahedron: Asymmetry *18 (2007) 1502*



$C_{13}H_{22}O_6$

2,3:5,6-Di-*O*-isopropylidene-2-*C*-hydroxymethyl-D-mannofuranose

Ee = 100%

$[\alpha]_D^{21} = +11.5$ (*c* 1.0, MeOH)

Source of chirality: D-fructose as starting material

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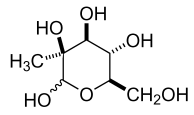
Tetrahedron: Asymmetry *18 (2007) 1502*



$C_7H_{14}O_6$

2-*C*-Methyl-D-mannopyranose

Ee = 100%

$[\alpha]_D^{22} = +15.1$ (*c* 1.0, H_2O)

Source of chirality: D-fructose as starting material

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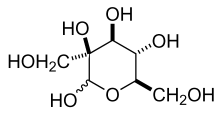
Tetrahedron: Asymmetry *18 (2007) 1502*



$C_7H_{14}O_7$

2-*C*-Hydroxymethyl-D-mannopyranose

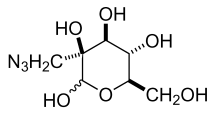
Ee = 100%

$[\alpha]_D^{22} = +27.4$ (*c* 1.0, H_2O)

Source of chirality: D-fructose as starting material

Daniel A. Mitchell, Nigel A. Jones, Stuart J. Hunter, Joseph M. D. Cook, Sarah F. Jenkinson, Mark R. Wormald, Raymond A. Dwek and George W. J. Fleet*

Tetrahedron: Asymmetry *18 (2007) 1502*



$C_7H_{13}N_3O_6$

2-*C*-Azidomethyl-D-mannopyranose

Ee = 100%

$[\alpha]_D^{23} = +41.0$ (*c* 1.0, H_2O)

Source of chirality: D-fructose as starting material

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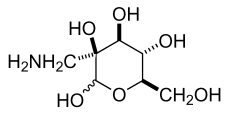
Tetrahedron: Asymmetry *18 (2007) 1502*



$C_7H_{15}NO_6$

2-*C*-Aminomethyl-D-mannopyranose

Ee = 100%

$[\alpha]_D^{22} = +3.7$ (*c* 1.0, H_2O)

Source of chirality: D-fructose as starting material

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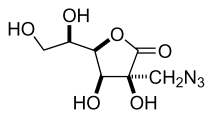
Tetrahedron: Asymmetry *18 (2007) 1502*



$C_7H_{11}N_3O_6$

2-*C*-Azidomethyl-D-mannono-1,4-lactone

Ee = 100%

$[\alpha]_D^{25} = +14.2$ (*c* 0.85, MeOH)

Source of chirality: D-fructose as starting material

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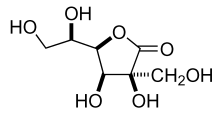
Tetrahedron: Asymmetry *18 (2007) 1502*



$C_7H_{12}O_7$

2-*C*-Hydroxymethyl-D-mannono-1,4-lactone

Ee = 100%

$[\alpha]_D^{21} = +10.0$ (*c* 0.65, MeOH)

Source of chirality: D-fructose as starting material