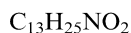
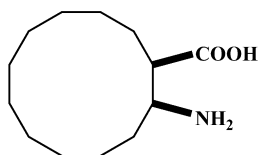


Enikő Forró and Ferenc Fülöp*

Tetrahedron: Asymmetry 17 (2006) 3193



(1*R*,2*S*)-2-Aminocyclododecane-carboxylic acid

Ee > 98% by HPLC on Nova-Pak C18 column after derivatisation

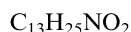
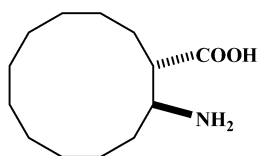
$[\alpha]_{\text{D}}^{25} = +5$ (*c* 0.2, H₂O)

Source of chirality: lipolase-catalysed enantioselective ring cleavage

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

Enikő Forró and Ferenc Fülöp*

Tetrahedron: Asymmetry 17 (2006) 3193



(1*S*,2*S*)-2-Aminocyclododecane-carboxylic acid

Ee > 98% by GC on Chirasil L-Val column after double derivatisation

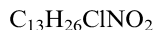
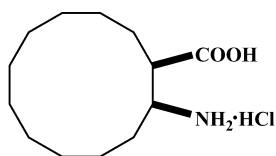
$[\alpha]_{\text{D}}^{25} = +8.3$ (*c* 0.4, EtOH)

Source of chirality: lipolase-catalysed enantioselective ring opening

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

Enikő Forró and Ferenc Fülöp*

Tetrahedron: Asymmetry 17 (2006) 3193



(1*R*,2*S*)-2-Aminocyclododecane-carboxylic acid hydrochloride

Ee > 98% by HPLC on Nova-Pak C18 column after derivatisation

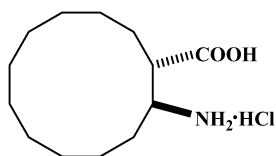
$[\alpha]_{\text{D}}^{25} = +15$ (*c* 0.2, H₂O)

Source of chirality: lipolase-catalysed enantioselective ring opening

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

Enikő Forró and Ferenc Fülöp*

Tetrahedron: Asymmetry 17 (2006) 3193



(1*S*,2*S*)-2-Aminocyclododecane-carboxylic acid hydrochloride

Ee > 98% by GC on Chirasil L-Val column after double derivatisation

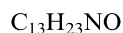
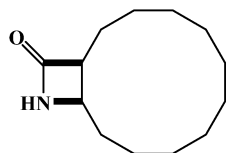
$[\alpha]_{\text{D}}^{25} = +6.2$ (*c* 0.4, H₂O)

Source of chirality: lipolase-catalysed enantioselective ring opening

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

Enikő Forró and Ferenc Fülöp*

Tetrahedron: Asymmetry 17 (2006) 3193



(1*S*,12*R*)-13-Azabicyclo[10.2.0]tetradecan-14-one

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

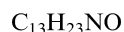
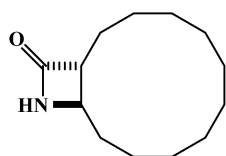
$[\alpha]_D^{25} = -6.9$ (*c* 0.5, EtOH)

Source of chirality: lipolase-catalysed enantioselective ring opening

Absolute configuration: (1*S*,12*R*)

Enikő Forró and Ferenc Fülöp*

Tetrahedron: Asymmetry 17 (2006) 3193



(1*R*,12*R*)-13-Azabicyclo[10.2.0]tetradecan-14-one

Ee = 98% by GC on CP-Chirasil-Dex CB column

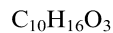
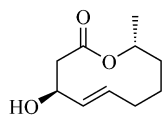
$[\alpha]_D^{25} = -140.1$ (*c* 0.5, EtOH)

Source of chirality: lipolase-catalysed enantioselective ring opening

Absolute configuration: (1*R*,12*R*)

G. V. M. Sharma and K. Laxmi Reddy*

Tetrahedron: Asymmetry 17 (2006) 3197



(4*S*,10*R*)-4-Hydroxy-10-methyl-3,4,7,8,9,10-hexahydro-2*H*-2-oxecinone

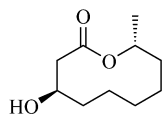
$[\alpha]_D = -35.8$ (*c* 0.2, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (4*S*,10*R*)

G. V. M. Sharma and K. Laxmi Reddy*

Tetrahedron: Asymmetry 17 (2006) 3197



(4*R*,10*R*)-4-Hydroxy-10-methyloxecan-2-one

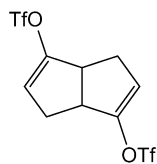
$[\alpha]_D = -39.7$ (*c* 0.25, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (4*R*,10*R*)

Elke Debie, Tom Kuppens, Koen Vandyck, Johan Van der Eycken,
Benjamin Van Der Veken, Wouter Herrebout and Patrick Bultinck*

Tetrahedron: Asymmetry 17 (2006) 3203



Bicyclo[3.3.0]octa-2,6-dien-2,6-bistriflate

Ee = >99%

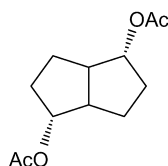
Source of chirality: enzymatic resolution

$[\alpha]_D^{20} = -49.2$ (c 0.97, $CHCl_3$)

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

Elke Debie, Tom Kuppens, Koen Vandyck, Johan Van der Eycken,
Benjamin Van Der Veken, Wouter Herrebout and Patrick Bultinck*

Tetrahedron: Asymmetry 17 (2006) 3203



2,6-Diacetoxycyclo[3.3.0]octane

Ee >99%

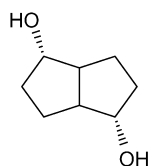
Source of chirality: enzymatic resolution

$[\alpha]_D^{20} = +45.3$ (c 1.0, $CHCl_3$)

Absolute configuration: (1*S*,2*R*,5*S*,6*R*)

Elke Debie, Tom Kuppens, Koen Vandyck, Johan Van der Eycken,
Benjamin Van Der Veken, Wouter Herrebout and Patrick Bultinck*

Tetrahedron: Asymmetry 17 (2006) 3203



Bicyclo[3.3.0]octane-2,6-diol

Ee = 98.5%

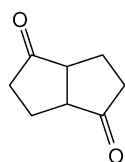
Source of chirality: enzymatic resolution

$[\alpha]_D^{20} = +45.3$ (c 1.0, $CHCl_3$)

Absolute configuration: (1*R*,2*S*,5*R*,6*S*)

Elke Debie, Tom Kuppens, Koen Vandyck, Johan Van der Eycken,
Benjamin Van Der Veken, Wouter Herrebout and Patrick Bultinck*

Tetrahedron: Asymmetry 17 (2006) 3203



Bicyclo[3.3.0]octane-2,6-dione

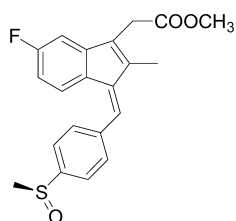
Source of chirality: enzymatic resolution

$[\alpha]_D^{20} = -398$ (c 0.25, EtOH)

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

Francesco Naso, Cosimo Cardellicchio,* Francesco Affortunato and Maria Annunziata M. Capozzi

Tetrahedron: Asymmetry 17 (2006) 3226



$C_{21}H_{19}FO_3S$

(*S*)-Sulindac methyl ester

Ee 94% (HPLC)

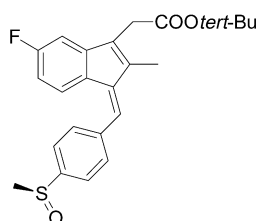
$[\alpha]_D^{25} = -60.4$ (*c* 1.0, $CHCl_3$)

Source of chirality: enantioselective oxidation

Absolute configuration: (*S*)

Francesco Naso, Cosimo Cardellicchio,* Francesco Affortunato and Maria Annunziata M. Capozzi

Tetrahedron: Asymmetry 17 (2006) 3226



$C_{24}H_{25}FO_3S$

(*S*)-Sulindac *tert*-butyl ester

Ee 96% (HPLC)

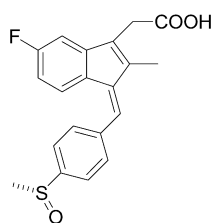
$[\alpha]_D^{25} = -42.8$ (*c* 1.0, $CHCl_3$)

Source of chirality: enantioselective oxidation

Absolute configuration: (*S*)

Francesco Naso, Cosimo Cardellicchio,* Francesco Affortunato and Maria Annunziata M. Capozzi

Tetrahedron: Asymmetry 17 (2006) 3226



$C_{20}H_{17}FO_3S$

(*R*)-Sulindac

Ee 96% (HPLC)

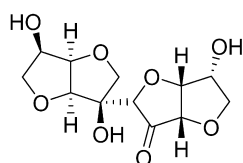
$[\alpha]_D^{25} = +56.6$ (*c* 0.5, CH_3OH)

Source of chirality: enantioselective oxidation

Absolute configuration: (*R*)

Hong-Min Liu,* Feng-Wu Liu, Xiao-Ping Song, Jing-Yu Zhang and Lin Yan

Tetrahedron: Asymmetry 17 (2006) 3230



$C_{12}H_{16}O_8$

(1*R*)-(1,4:3,6-Dianhydro-*D*-mannitol-2-yl)-1,4:3,6-dianhydro-*D*-fructose

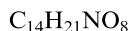
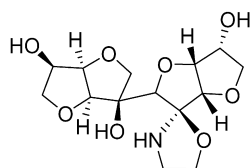
$[\alpha]_D^{20} = +173.4$ (*c* 1.10, CH_3OH)

Source of chirality: asymmetric synthesis

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

Hong-Min Liu,* Feng-Wu Liu, Xiao-Ping Song, Jing-Yu Zhang and Lin Yan

Tetrahedron: Asymmetry 17 (2006) 3230



(2*R*,3*R*,3*aS*,6*R*,6*aR*,3'*R*,3'*aS*,6'*R*,6'*aR*)-Spiro[6,3',6'-trihydroxy-octahydro[2,3']bi[furo[3,2-*b*]furan]-3,2'-[1'',3''-oxazodiline]

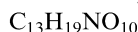
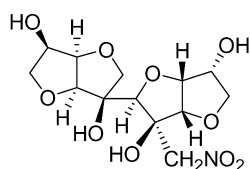
$[\alpha]_D^{20} = +105.7$ (*c* 1.06, CH₃OH)

Source of chirality: asymmetric synthesis

Absolute configuration: (3*R*)

Hong-Min Liu,* Feng-Wu Liu, Xiao-Ping Song, Jing-Yu Zhang and Lin Yan

Tetrahedron: Asymmetry 17 (2006) 3230



(1*S*)-(1,4:3,6-Dianhydro-D-mannitol-2-yl)-2-nitromethyl-1,4:3,6-dianhydro-D-glucitol

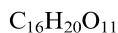
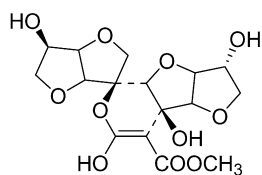
$[\alpha]_D^{20} = +92.9$ (*c* 1.06, CH₃OH)

Source of chirality: asymmetric synthesis

Absolute configuration: (2*R*)

Hong-Min Liu,* Feng-Wu Liu, Xiao-Ping Song, Jing-Yu Zhang and Lin Yan

Tetrahedron: Asymmetry 17 (2006) 3230



(2*R*,3*R*,3*aS*,6*R*,6*aR*,3'*R*,3'*aS*,6'*R*,6'*aR*)-Spiro[6'''-hydroxy-tetrahydro-furo[3,2-*b*]furan]-3''',2'-[6,4',4''-trihydroxy-5-methoxycarbonyl-furo[2'',3'':4',5']furo[2,3-*c*]pyran-5-ene]

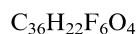
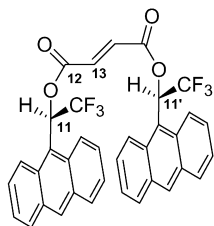
$[\alpha]_D^{20} = +81.0$ (*c* 0.218, H₂O)

Source of chirality: asymmetric synthesis

Absolute configuration: (3*R*)

Martina Palomino-Schätzlein, Albert Virgili,* Carlos Jaime and Elies Molins

Tetrahedron: Asymmetry 17 (2006) 3237



Di-2,2,2-trifluoro-1-(9-anthryl)ethyl fumarate

E_e = 98%

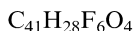
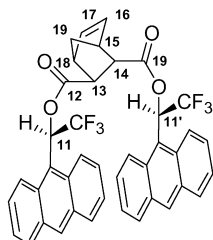
$[\alpha]_D^{20} = -80$ (*c* 1.0, CHCl₃)

Source of chirality: enantiopure reactant

Absolute configuration: (11*R*,11'*R*)

Martina Palomino-Schätzlein, Albert Virgili,* Carlos Jaime and Elies Molins

Tetrahedron: Asymmetry 17 (2006) 3237



Di-[(*R*)-1-(9-anthryl)-2,2,2-trifluoroethyl](13*S*,14*S*)-4,5-dimethylcyclo-4-ene-1,2-dicarboxylate

Ee = 82%

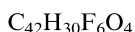
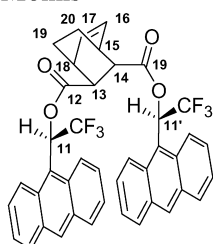
$[\alpha]_D^{20} = -62$ (*c* 1.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (11*R*,13*S*,14*S*,11'*R*)

Martina Palomino-Schätzlein, Albert Virgili,* Carlos Jaime and Elies Molins

Tetrahedron: Asymmetry 17 (2006) 3237



Di-[(*R*)-1-(9-anthryl)-2,2,2-trifluoroethyl](13*S*,14*S*,15*R*,18*S*)-bicyclo[2.2.2]oct-5-ene-2,3-dicarboxylate

Ee = 95%

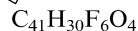
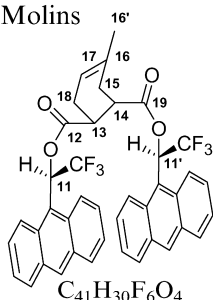
$[\alpha]_D^{20} = -95$ (*c* 1.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (11*R*,13*S*,14*S*,15*R*,18*S*,11'*R*)

Martina Palomino-Schätzlein, Albert Virgili,* Carlos Jaime and Elies Molins

Tetrahedron: Asymmetry 17 (2006) 3237



Di-[(*R*)-1-(9-anthryl)-2,2,2-trifluoroethyl](13*S*,14*S*)-4-methylcyclo-4-ene-1,2-dicarboxylate

Ee = 90%

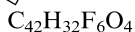
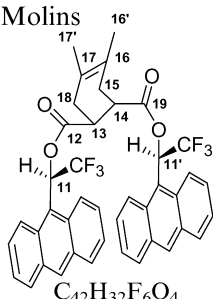
$[\alpha]_D^{20} = -80$ (*c* 1.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (11*R*,13*S*,14*S*,11'*R*)

Martina Palomino-Schätzlein, Albert Virgili,* Carlos Jaime and Elies Molins

Tetrahedron: Asymmetry 17 (2006) 3237



Di-[(*R*)-1-(9-anthryl)-2,2,2-trifluoroethyl](13*S*,14*S*)-4,5-dimethylcyclo-4-ene-1,2-dicarboxylate

Ee = 90%

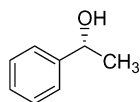
$[\alpha]_D^{20} = -86$ (*c* 1.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (11*R*,13*S*,14*S*,11'*R*)

Shaik Anwar and Mariappan Periasamy*

Tetrahedron: Asymmetry 17 (2006) 3244



$C_8H_{10}O$

(*R*)-1-Phenylethanol

Ee > 99%

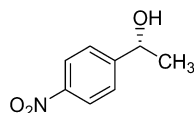
$[\alpha]_D^{25} = +45$ (*c* 1, MeOH)

Source of chirality: asymmetric reduction

Absolute configuration: (*R*)

Shaik Anwar and Mariappan Periasamy*

Tetrahedron: Asymmetry 17 (2006) 3244



$C_8H_9NO_3$

(*R*)-1-(4-Nitrophenyl)ethanol

Ee > 96%

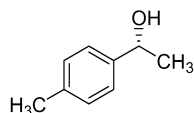
$[\alpha]_D^{25} = +30$ (*c* 1, MeOH)

Source of chirality: asymmetric reduction

Absolute configuration: (*R*)

Shaik Anwar and Mariappan Periasamy*

Tetrahedron: Asymmetry 17 (2006) 3244



$C_9H_{12}O$

(*R*)-1-(4-Methylphenyl)ethanol

Ee > 95%

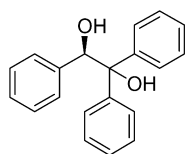
$[\alpha]_D^{25} = +40$ (*c* 1.0, MeOH)

Source of chirality: asymmetric reduction

Absolute configuration: (*R*)

Shaik Anwar and Mariappan Periasamy*

Tetrahedron: Asymmetry 17 (2006) 3244



$C_{20}H_{18}O_2$

(*2R*)-1,1,2-Triphenyl-1,2-ethanediol

Ee > 40%

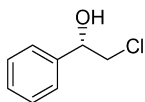
$[\alpha]_D^{25} = +91$ (*c* 1.0, CHCl₃)

Source of chirality: asymmetric reduction

Absolute configuration: (*R*)

Shaik Anwar and Mariappan Periasamy*

Tetrahedron: Asymmetry 17 (2006) 3244



C_8H_9ClO

(*S*)-2-Chloro-1-phenylethanol

Ee > 82%

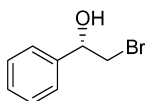
$[\alpha]_D^{25} = +39$ (*c* 1.20, cyclohexane)

Source of chirality: asymmetric reduction

Absolute configuration: (*S*)

Shaik Anwar and Mariappan Periasamy*

Tetrahedron: Asymmetry 17 (2006) 3244



C_8H_9BrO

(*S*)-2-Bromo-1-phenylethanol

Ee > 76%

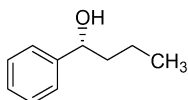
$[\alpha]_D^{25} = +28$ (*c* 1.0, $CHCl_3$)

Source of chirality: asymmetric reduction

Absolute configuration: (*S*)

Shaik Anwar and Mariappan Periasamy*

Tetrahedron: Asymmetry 17 (2006) 3244



$C_{10}H_{14}O$

(*R*)-1-Phenylbutan-1-ol

Ee > 94%

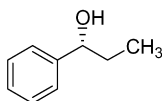
$[\alpha]_D^{25} = +42$ (*c* 0.60, benzene)

Source of chirality: asymmetric reduction

Absolute configuration: (*R*)

Shaik Anwar and Mariappan Periasamy*

Tetrahedron: Asymmetry 17 (2006) 3244



$C_9H_{12}O$

(*R*)-1-Phenylpropan-1-ol

Ee > 91%

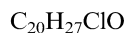
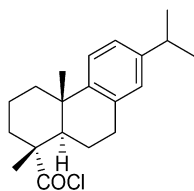
$[\alpha]_D^{25} = +43$ (*c* 1.30, $CHCl_3$)

Source of chirality: asymmetric reduction

Absolute configuration: (*R*)

Cristina Moiteiro,* Nelson Fonseca, Maria J. M. Curto, Regina Tavares,
Ana M. Lobo, Paulo Ribeiro-Claro, Vitor Félix* and Michael G. B. Drew

Tetrahedron: Asymmetry 17 (2006) 3248

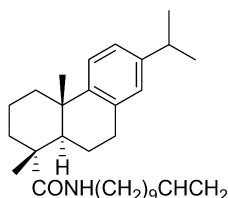


Dehydroabietoyl chloride

$$[\alpha]_D^{23} = +59.0 \text{ (c 1, ethanol)}$$

Cristina Moiteiro,* Nelson Fonseca, Maria J. M. Curto, Regina Tavares,
Ana M. Lobo, Paulo Ribeiro-Claro, Vitor Félix* and Michael G. B. Drew

Tetrahedron: Asymmetry 17 (2006) 3248

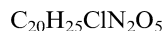
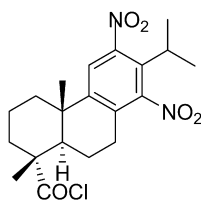


N-(10'-Undecenyl)dehydroabietamide

$$[\alpha]_D^{23} = +57.7 \text{ (c 1, ethanol)}$$

Cristina Moiteiro,* Nelson Fonseca, Maria J. M. Curto, Regina Tavares,
Ana M. Lobo, Paulo Ribeiro-Claro, Vitor Félix* and Michael G. B. Drew

Tetrahedron: Asymmetry 17 (2006) 3248

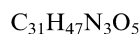
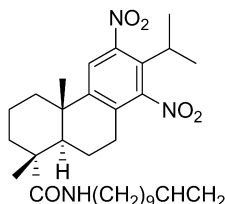


12,14-Dinitrodehydroabietoyl chloride

$$[\alpha]_D^{23} = +47.5 \text{ (c 1, acetone)}$$

Cristina Moiteiro,* Nelson Fonseca, Maria J. M. Curto, Regina Tavares,
Ana M. Lobo, Paulo Ribeiro-Claro, Vitor Félix* and Michael G. B. Drew

Tetrahedron: Asymmetry 17 (2006) 3248

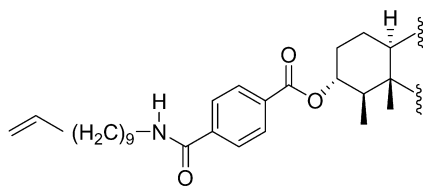


N-(10'-Undecenyl)-12,14-dinitrodehydroabietamide

$$[\alpha]_D^{23} = +36.9 \text{ (c 1, acetone)}$$

Cristina Moiteiro,* Nelson Fonseca, Maria J. M. Curto, Regina Tavares, Ana M. Lobo, Paulo Ribeiro-Claro, Vitor Félix* and Michael G. B. Drew

Tetrahedron: Asymmetry 17 (2006) 3248



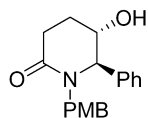
$C_{49}H_{77}NO_3$

4'-(N-10''-Undecenylamide)-1'-friedelan-3 α -yl-benzoate

$[\alpha]_D^{23} = -6.4$ (c 0.94, CH_2Cl_2)

Liang-Xian Liu and Pei-Qiang Huang*

Tetrahedron: Asymmetry 17 (2006) 3265



$C_{19}H_{21}NO_3$

(5*S*,6*R*)-5-Hydroxyl-1-(4-methoxybenzyl)-6-phenyl-2-piperidinone

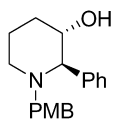
$[\alpha]_D^{20} = +53.0$ (c 1.0, $CHCl_3$)

Source of chirality: (*S*)-glutamic acid

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

Liang-Xian Liu and Pei-Qiang Huang*

Tetrahedron: Asymmetry 17 (2006) 3265



$C_{19}H_{23}NO_2$

(2*R*,3*S*)-3-Hydroxyl-1-(4-methoxybenzyl)-2-phenylpiperidine

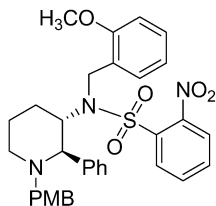
$[\alpha]_D^{20} = -18.5$ (c 1.0, $CHCl_3$)

Source of chirality: (*S*)-glutamic acid

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

Liang-Xian Liu and Pei-Qiang Huang*

Tetrahedron: Asymmetry 17 (2006) 3265



$C_{33}H_{35}N_3O_6S$

(2*R*,3*S*)-3-[N-(2-Methoxybenzyl)-N-(2-nitrobenzenesulfonyl)]amino-1-(4-methoxybenzyl)-2-phenylpiperidine

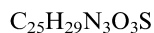
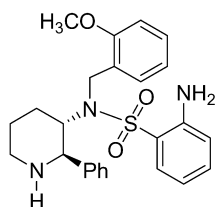
$[\alpha]_D^{20} = -7.1$ (c 1.0, $CHCl_3$)

Source of chirality: (*S*)-glutamic acid

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

Liang-Xian Liu and Pei-Qiang Huang*

Tetrahedron: Asymmetry 17 (2006) 3265



(2*R*,3*S*)-3-[*N*-(2-Aminobenzenesulfonyl)-*N*-(2-methoxybenzyl)]amino-2-phenyl piperidine

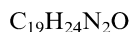
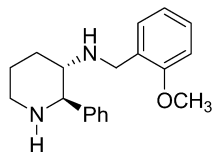
$[\alpha]_D^{20} = +91.7$ (*c* 0.2, $CHCl_3$)

Source of chirality: (*S*)-glutamic acid

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

Liang-Xian Liu and Pei-Qiang Huang*

Tetrahedron: Asymmetry 17 (2006) 3265



(2*R*,3*S*)-3-(2-Methoxybenzyl)amino-2-phenylpiperidine

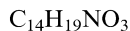
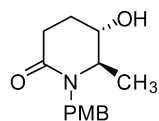
$[\alpha]_D^{20} = +73.4$ (*c* 0.4, MeOH, dihydrochloride)

Source of chirality: (*S*)-glutamic acid

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

Liang-Xian Liu and Pei-Qiang Huang*

Tetrahedron: Asymmetry 17 (2006) 3265



(5*S*,6*R*)-5-Hydroxyl-1-(4-methoxybenzyl)-6-methyl-2-piperidinone

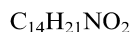
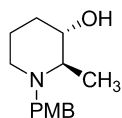
$[\alpha]_D^{20} = +64.1$ (*c* 1.6, $CHCl_3$)

Source of chirality: (*S*)-glutamic acid

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

Liang-Xian Liu and Pei-Qiang Huang*

Tetrahedron: Asymmetry 17 (2006) 3265



(2*R*,3*S*)-3-Hydroxyl-1-(4-methoxybenzyl)-2-methylpiperidine

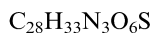
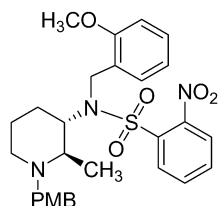
$[\alpha]_D^{20} = -32.7$ (*c* 2.1, $CHCl_3$)

Source of chirality: (*S*)-glutamic acid

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

Liang-Xian Liu and Pei-Qiang Huang*

Tetrahedron: Asymmetry 17 (2006) 3265



(2*R*,3*S*)-3-[*N*-(2-Methoxybenzyl)-*N*-(2-nitrobenzenesulfonyl)]amino-1-(4-methoxybenzyl)-2-methylpiperidine

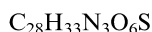
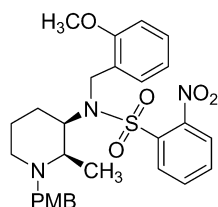
$[\alpha]_D^{20} = -50.4$ (*c* 1.4, $CHCl_3$)

Source of chirality: (*S*)-glutamic acid

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

Liang-Xian Liu and Pei-Qiang Huang*

Tetrahedron: Asymmetry 17 (2006) 3265



(2*R*,3*R*)-3-[*N*-(2-Methoxybenzyl)-*N*-(2-nitrobenzenesulfonyl)]amino-1-(4-methoxybenzyl)-2-methylpiperidine

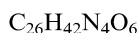
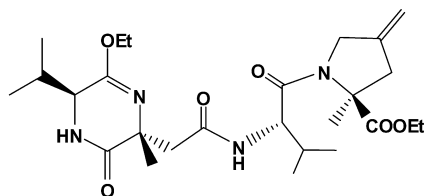
$[\alpha]_D^{20} = +10.2$ (*c* 2.3, $CHCl_3$)

Source of chirality: (*S*)-glutamic acid

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

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

Tetrahedron: Asymmetry 17 (2006) 3273



1-[2''(*S*)-[2'-(6'-Ethoxy-5'(*S*)-isopropyl-2'(*R*)-methyl-3'-oxo-2',3',4',5'-tetrahydro-pyrazin-2'-yl)-acetylamino]-3''-methyl-buteryl]-2(*S*)-methyl-4-methylene-pyrrolidine-2-carboxylic acid ethyl ester

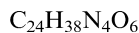
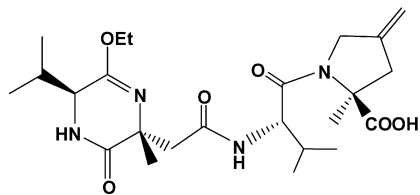
$[\alpha]_D = -31.3$ (*c* 1.4, $CHCl_3$)

Source of chirality: L-valine

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

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

Tetrahedron: Asymmetry 17 (2006) 3273



1-[2''(*S*)-[2'-(6'-Ethoxy-5'(*S*)-isopropyl-2'(*R*)-methyl-3'-oxo-2',3',4',5'-tetrahydro-pyrazin-2'-yl)-acetylamino]-3''-methyl-buteryl]-2(*S*)-methyl-4-methylene-pyrrolidine-2-carboxylic acid

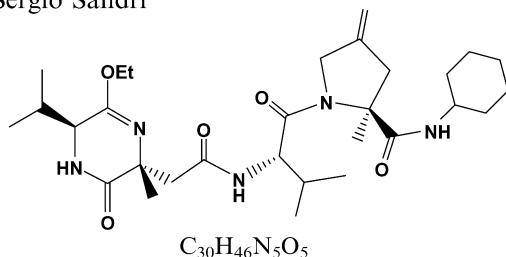
$[\alpha]_D = -41.5$ (*c* 1, $CHCl_3$)

Source of chirality: L-valine

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

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

Tetrahedron: Asymmetry 17 (2006) 3273



$[\alpha]_D = -34.3$ (c 0.7, $CHCl_3$)

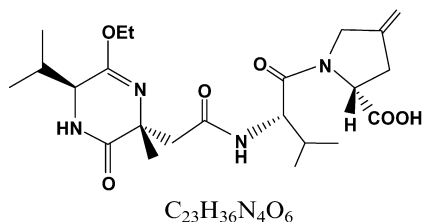
Source of chirality: L-valine

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

1-[2''(S)-[2'-(6'-Ethoxy-5'(S)-isopropyl-2'(R)-methyl-3'-oxo-2',3',4',5'-tetrahydro-pyrazin-2'-yl)-acetylamino]-3''-methyl-buteryl]-2(S)-methyl-4-methylene-pyrrolidine-2-carboxylic acid cyclohexyl amide

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

Tetrahedron: Asymmetry 17 (2006) 3273



$[\alpha]_D = -16.9$ (c 0.9, $CHCl_3$)

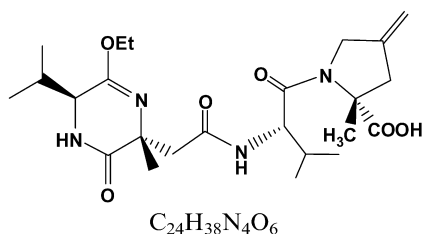
Source of chirality: L-valine

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

1-[2''(S)-[2'-(6'-Ethoxy-5'(S)-isopropyl-2'(R)-methyl-3'-oxo-2',3',4',5'-tetrahydro-pyrazin-2'-yl)-acetylamino]-3''-methyl-buteryl]-4-methylene-pyrrolidine-2(R)-carboxylic acid

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

Tetrahedron: Asymmetry 17 (2006) 3273



$[\alpha]_D = -48.6$ (c 0.7, $CHCl_3$)

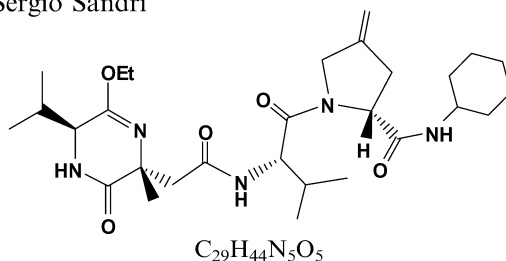
Source of chirality: L-valine

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

1-[2''(S)-[2'-(6'-Ethoxy-5'(S)-isopropyl-2'(R)-methyl-3'-oxo-2',3',4',5'-tetrahydro-pyrazin-2'-yl)-acetylamino]-3''-methyl-buteryl]-2-methyl-4-methylene-pyrrolidine-2-carboxylic acid

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

Tetrahedron: Asymmetry 17 (2006) 3273



$[\alpha]_D = +41.0$ (c 0.4, $CHCl_3$)

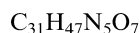
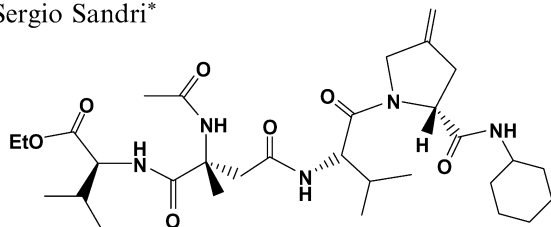
Source of chirality: L-valine

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

1-[2''(S)-[2'-(6'-Ethoxy-5'(S)-isopropyl-2'(R)-methyl-3'-oxo-2',3',4',5'-tetrahydro-pyrazin-2'-yl)-acetylamino]-3''-methyl-buteryl]-4-methylene-pyrrolidine-2(R)-carboxylic acid cyclohexyl amide

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

Tetrahedron: Asymmetry 17 (2006) 3273



1-[(1'-Carbonyl-2'(S)-isopropyl-3',8'-diaz-4',7'-dioxo-6'(R)-N-acetamido-6'-methyl-9'(S)-isopropyl)ethyl decanoate]-4-methylene-2(R)-cyclohexylcarbamoylpyrrolidine hydrochloride

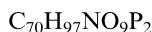
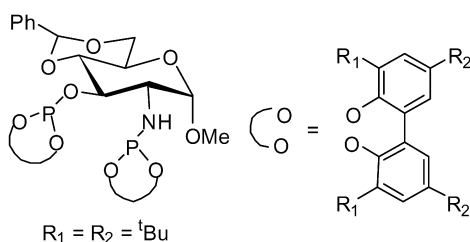
$[\alpha]_D = +75.7$ (c 0.5, $CHCl_3$)

Source of chirality: L-valine

Absolute configuration: (2R,2'S,6'S,9'S)

Yvette Mata, Carmen Claver, Montserrat Diéguez* and Oscar Pàmies*

Tetrahedron: Asymmetry 17 (2006) 3282



Methyl-2,3-bis[(3,3',5,5'-tetra-*t*-butyl-1,1'-biphenyl-2,2'-diyl)phosphite]-2-amine-4-6-*O*-benzylidene-2-deoxy- α -D-glucopyranoside

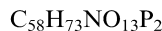
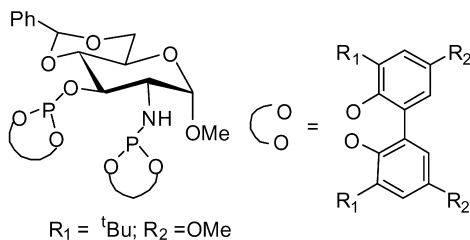
$[\alpha]_D^{20} = -78.4$ (c 0.5, $CHCl_3$)

Source of chirality: chiral pool

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

Yvette Mata, Carmen Claver, Montserrat Diéguez* and Oscar Pàmies*

Tetrahedron: Asymmetry 17 (2006) 3282



Methyl-2,3-bis[(3,3'-bis-*t*-butyl-5,5'-bis-methoxy-1,1'-biphenyl-2,2'-diyl)phosphite]-2-amine-4-6-*O*-benzylidene-2-deoxy- α -D-glucopyranoside

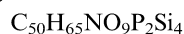
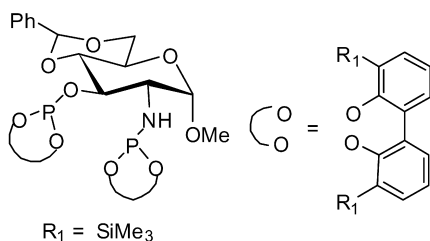
$[\alpha]_D^{20} = -119.9$ (c 0.5, $CHCl_3$)

Source of chirality: chiral pool

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

Yvette Mata, Carmen Claver, Montserrat Diéguez* and Oscar Pàmies*

Tetrahedron: Asymmetry 17 (2006) 3282



Methyl-2,3-bis[(3,3'-bis-trimethylsilyl-1,1'-biphenyl-2,2'-diyl)phosphite]-2-amine-4-6-*O*-benzylidene-2-deoxy- α -D-glucopyranoside

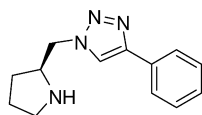
$[\alpha]_D^{20} = -69.9$ (c 0.5, $CHCl_3$)

Source of chirality: chiral pool

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

Ze-Yi Yan, Yan-Ning Niu, Hai-Long Wei, Lu-Yong Wu,
Ya-Bin Zhao and Yong-Min Liang*

Tetrahedron: Asymmetry 17 (2006) 3288



4-Phenyl-1-(((S)-pyrrolidin-2-yl)methyl)-1H-1,2,3-triazole

Ee = 100%

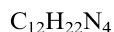
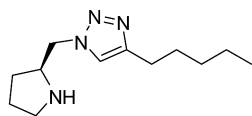
$[\alpha]_D^{20} = +18$ (c 1.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (S)

Ze-Yi Yan, Yan-Ning Niu, Hai-Long Wei, Lu-Yong Wu,
Ya-Bin Zhao and Yong-Min Liang*

Tetrahedron: Asymmetry 17 (2006) 3288



4-Pentyl-1-(((S)-pyrrolidin-2-yl)methyl)-1H-1,2,3-triazole

Ee = 100%

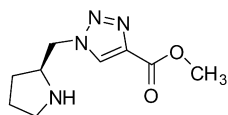
$[\alpha]_D^{20} = -13$ (c 1.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (S)

Ze-Yi Yan, Yan-Ning Niu, Hai-Long Wei, Lu-Yong Wu,
Ya-Bin Zhao and Yong-Min Liang*

Tetrahedron: Asymmetry 17 (2006) 3288



1-(((S)-Pyrrolidin-2-yl)methyl)-1H-1,2,3-triazole-4-carboxylic acid methyl ester

Ee = 100%

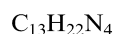
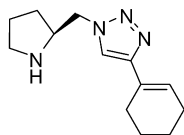
$[\alpha]_D^{20} = +12$ (c 1.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (S)

Ze-Yi Yan, Yan-Ning Niu, Hai-Long Wei, Lu-Yong Wu,
Ya-Bin Zhao and Yong-Min Liang*

Tetrahedron: Asymmetry 17 (2006) 3288



4-Cyclohexenyl-1-(((S)-pyrrolidin-2-yl)methyl)-1H-1,2,3-triazole

Ee = 100%

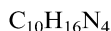
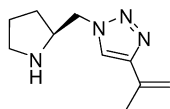
$[\alpha]_D^{20} = -4$ (c 1.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (S)

Ze-Yi Yan, Yan-Ning Niu, Hai-Long Wei, Lu-Yong Wu,
Ya-Bin Zhao and Yong-Min Liang*

Tetrahedron: Asymmetry 17 (2006) 3288



4-(Prop-1-en-2-yl)-1-(((*S*)-pyrrolidin-2-yl)methyl)-1*H*-1,2,3-triazole

Ee = 100%

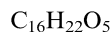
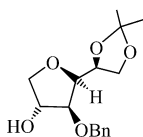
$[\alpha]_D^{20} = +12$ (c 1.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Ram Sagar, L. Vijaya Raghava Reddy, Mohammad Saquib,
Brijesh Kumar and Arun K. Shaw*

Tetrahedron: Asymmetry 17 (2006) 3294



(2*S*,3*S*,4*S*,5*R*)-1,2-*O*-Isopropylidene-3,6-anhydro-4-*O*-benzyl-D-galactitol

De >99%

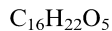
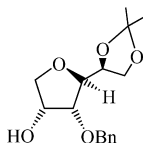
$[\alpha]_D = +14.0$ (c 0.100, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Ram Sagar, L. Vijaya Raghava Reddy, Mohammad Saquib,
Brijesh Kumar and Arun K. Shaw*

Tetrahedron: Asymmetry 17 (2006) 3294



(2*S*,3*S*,4*R*,5*R*)-1,2-*O*-Isopropylidene-3,6-anhydro-4-*O*-benzyl-D-glucitol

De >99%

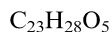
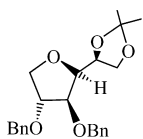
$[\alpha]_D = -12.0$ (c 0.100, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Ram Sagar, L. Vijaya Raghava Reddy, Mohammad Saquib,
Brijesh Kumar and Arun K. Shaw*

Tetrahedron: Asymmetry 17 (2006) 3294



(2*S*,3*S*,4*S*,5*R*)-1,2-*O*-Isopropylidene-3,6-anhydro-4,5-di-*O*-benzyl-D-galactitol

De >99%

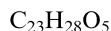
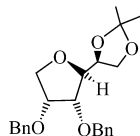
$[\alpha]_D = +5.95$ (c 0.235, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Ram Sagar, L. Vijaya Raghava Reddy, Mohammad Saquib,
Brijesh Kumar and Arun K. Shaw*

Tetrahedron: Asymmetry 17 (2006) 3294



(2*S*,3*S*,4*R*,5*R*)-1,2-*O*-Isopropylidene-3,6-anhydro-4,5-di-*O*-benzyl-D-glucitol

De >99%

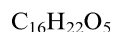
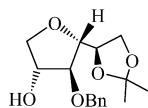
$[\alpha]_{\text{D}} = -23.6$ (*c* 0.165, CHCl_3)

Source of chirality: asymmetric synthesis

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

Ram Sagar, L. Vijaya Raghava Reddy, Mohammad Saquib,
Brijesh Kumar and Arun K. Shaw*

Tetrahedron: Asymmetry 17 (2006) 3294



(2*R*,3*R*,4*S*,5*R*)-1,2-*O*-Isopropylidene-3,6-anhydro-4-*O*-benzyl-D-galactitol

De >99%

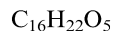
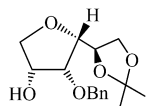
$[\alpha]_{\text{D}} = +47.3$ (*c* 0.148, CHCl_3)

Source of chirality: asymmetric synthesis

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

Ram Sagar, L. Vijaya Raghava Reddy, Mohammad Saquib,
Brijesh Kumar and Arun K. Shaw*

Tetrahedron: Asymmetry 17 (2006) 3294



(2*R*,3*R*,4*R*,5*R*)-1,2-*O*-Isopropylidene-3,6-anhydro-4-*O*-benzyl-D-glucitol

De >99%

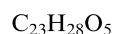
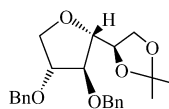
$[\alpha]_{\text{D}} = +4.95$ (*c* 0.101, CHCl_3)

Source of chirality: asymmetric synthesis

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

Ram Sagar, L. Vijaya Raghava Reddy, Mohammad Saquib,
Brijesh Kumar and Arun K. Shaw*

Tetrahedron: Asymmetry 17 (2006) 3294



(2*R*,3*R*,4*S*,5*R*)-1,2-*O*-Isopropylidene-3,6-anhydro-4,5-di-*O*-benzyl-D-galactitol

De >99%

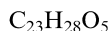
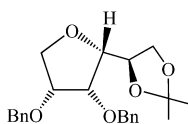
$[\alpha]_{\text{D}} = -7.7$ (*c* 0.220, CHCl_3)

Source of chirality: asymmetric synthesis

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

Ram Sagar, L. Vijaya Raghava Reddy, Mohammad Saquib,
Brijesh Kumar and Arun K. Shaw*

Tetrahedron: Asymmetry 17 (2006) 3294



(2*R*,3*R*,4*R*,5*R*)-1,2-Isopropylidene-3,6-anhydro-4,5-di-*O*-benzyl-*D*-glucitol

De >99%

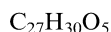
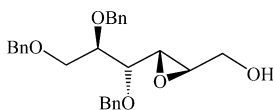
$[\alpha]_{\text{D}} = +14.0$ (*c* 0.121, CHCl_3)

Source of chirality: asymmetric synthesis

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

Ram Sagar, L. Vijaya Raghava Reddy, Mohammad Saquib,
Brijesh Kumar and Arun K. Shaw*

Tetrahedron: Asymmetry 17 (2006) 3294



(2*R*,3*S*)-4,5,6-Tri-*O*-benzyl-2,3-epoxy-*D*-glucitol

De >99%

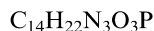
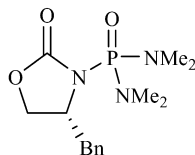
$[\alpha]_{\text{D}} = -6.5$ (*c* 0.108, CHCl_3)

Source of chirality: asymmetric synthesis

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

Laura Palombi,* Maria R. Acocella, Nicoletta Celenta, Antonio Massa,
Rosaria Villano and Arrigo Scettri

Tetrahedron: Asymmetry 17 (2006) 3300



[(*R*)-4-Benzyloxazolidin-2-one]-*N*-yl-*N*,*N'*,*N'*-tetra methylphosphorotriamide

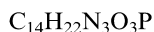
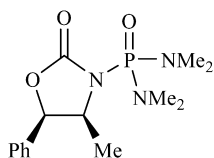
$[\alpha]_{\text{D}} = -44.2$ (*c* 1.0, CHCl_3)

Source of chirality: (*R*)-4-benzyloxazolidin-2-one

Absolute configuration: (4*R*)

Laura Palombi,* Maria R. Acocella, Nicoletta Celenta, Antonio Massa,
Rosaria Villano and Arrigo Scettri

Tetrahedron: Asymmetry 17 (2006) 3300



[(4*S*,5*R*)-4-Methyl-5-phenyloxazolidin-2-one]-*N*-yl-*N*,*N'*,*N'*-tetra methylphosphorotriamide

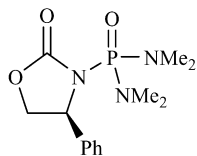
$[\alpha]_{\text{D}} = +0.7$ (*c* 1.0, CHCl_3)

Source of chirality: (4*S*,5*R*)-4-methyl-5-phenyloxazolidin-2-one

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

Laura Palombi,* Maria R. Acocella, Nicoletta Celenta, Antonio Massa,
Rosaria Villano and Arrigo Scettri

Tetrahedron: Asymmetry 17 (2006) 3300



$C_{13}H_{20}N_3O_3P$

[(*S*)-4-Phenyloxazolidin-2-one]-*N*-yl-*N,N',N'*-tetra methylphosphorotriamide

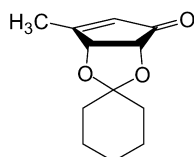
$[\alpha]_D = +11.0$ (*c* 1.0, $CHCl_3$)

Source of chirality: (*S*)-4-phenyloxazolidin-2-one

Absolute configuration: (4*S*)

Peng Liu, Ashoke Sharon and Chung K. Chu*

Tetrahedron: Asymmetry 17 (2006) 3304



$C_{12}H_{16}O_3$

(3*a'S*,6*a'S*)-6'-Methyl-3*a'H*-spiro[cyclohexane-1,2'-cyclopenta[*d*][1,3]dioxol]-4'-(6*a'H*)-one

Ee = 100%

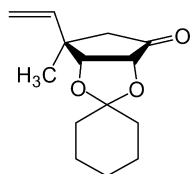
$[\alpha]_D^{27} = -35.3$ (*c* 0.97, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Peng Liu, Ashoke Sharon and Chung K. Chu*

Tetrahedron: Asymmetry 17 (2006) 3304



$C_{14}H_{20}O_3$

(3*a'S*,4'*R*,6*a'S*)-4'-Methyl-4'-vinyl-4'-vinylidihydro-3*a'H*-spiro[cyclohexane-1,2'-cyclopenta[*d*][1,3]dioxol]-6'-(6*a'H*)-one

Ee = 100%

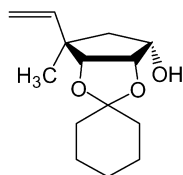
$[\alpha]_D^{27} = -209.1$ (*c* 0.76, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (3*a'S*,4'*R*,6*a'S*)

Peng Liu, Ashoke Sharon and Chung K. Chu*

Tetrahedron: Asymmetry 17 (2006) 3304



$C_{14}H_{22}O_3$

(3*a'S*,4'*R*,6'*S*,6*a'R*)-4'-Methyl-4'-vinyltetrahydro-3*a'H*-spiro[cyclohexane-1,2'-cyclopenta[*d*][1,3]dioxol]-6'-ol

Ee = 100%

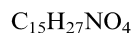
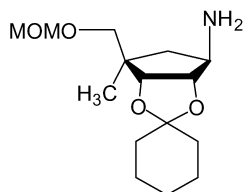
$[\alpha]_D^{26} = -9.1$ (*c* 1.46, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (3*a'S*,4'*R*,6'*S*,6*a'R*)

Peng Liu, Ashoke Sharon and Chung K. Chu*

Tetrahedron: Asymmetry 17 (2006) 3304



(3a'S,4'R,6'S,6a'R)-4'-((Methoxymethoxy)methyl)-4'-methyltetrahydro-3a'H-spiro[cyclohexane-1,2'-cyclopenta[d][1,3]dioxol]-6'-amine

Ee = 100%

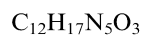
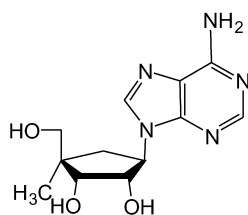
$[\alpha]_D^{26} = +11.3$ (c 0.38, EtOAc)

Source of chirality: asymmetric synthesis

Absolute configuration: (3a'S,4'R,6'S,6a'R)

Peng Liu, Ashoke Sharon and Chung K. Chu*

Tetrahedron: Asymmetry 17 (2006) 3304



(1R,2S,3R,5R)-5-(6-Amino-9H-purin-9-yl)-3-(hydroxymethyl)-3-methylcyclopentane-1,2-diol

Ee = 100%

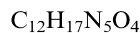
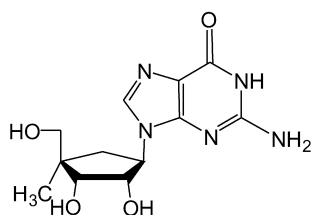
$[\alpha]_D^{24} = -29.6$ (c 0.32, MeOH)

Source of chirality: asymmetric synthesis

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

Peng Liu, Ashoke Sharon and Chung K. Chu*

Tetrahedron: Asymmetry 17 (2006) 3304



2-Amino-9-((1R,2R,3S,4R)-2,3-dihydroxy-4-(hydroxymethyl)-4-methylcyclopentyl)-1H-purin-6(9H)-one

Ee = 100%

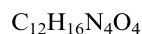
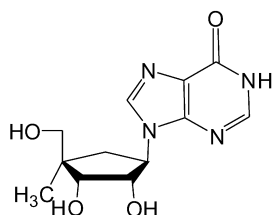
$[\alpha]_D^{26} = -6.45$ (c 0.12, MeOH)

Source of chirality: asymmetric synthesis

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

Peng Liu, Ashoke Sharon and Chung K. Chu*

Tetrahedron: Asymmetry 17 (2006) 3304



9-((1R,2R,3S,4R)-2,3-Dihydroxy-4-(hydroxymethyl)-4-methylcyclopentyl)-1H-purin-6(9H)-one

Ee = 100%

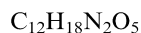
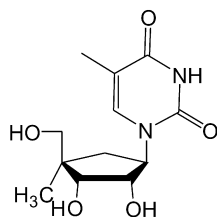
$[\alpha]_D^{27} = -37.8$ (c 0.25, MeOH-CH₂Cl₂ 1:1)

Source of chirality: asymmetric synthesis

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

Peng Liu, Ashoke Sharon and Chung K. Chu*

Tetrahedron: Asymmetry 17 (2006) 3304



1-((1*R*,2*R*,3*S*,4*R*)-2,3-Dihydroxy-4-(hydroxymethyl)-4-methylcyclopentyl)-5-methylpyrimidine-2,4(1*H*,3*H*)-dione

Ee = 100%

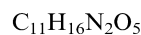
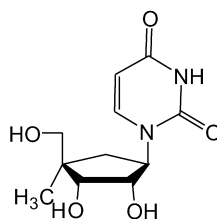
$[\alpha]_D^{27} = -81.8$ (*c* 1.40, MeOH)

Source of chirality: asymmetric synthesis

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

Peng Liu, Ashoke Sharon and Chung K. Chu*

Tetrahedron: Asymmetry 17 (2006) 3304



1-((1*R*,2*R*,3*S*,4*R*)-2,3-Dihydroxy-4-(hydroxymethyl)-4-methylcyclopentyl)pyrimidine-2,4(1*H*,3*H*)-dione

Ee = 100%

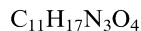
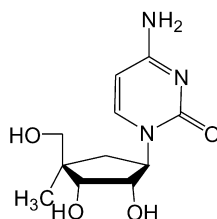
$[\alpha]_D^{24} = -42.4$ (*c* 0.46, MeOH)

Source of chirality: asymmetric synthesis

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

Peng Liu, Ashoke Sharon and Chung K. Chu*

Tetrahedron: Asymmetry 17 (2006) 3304



4-Amino-1-((1*R*,2*R*,3*S*,4*R*)-2,3-dihydroxy-4-(hydroxymethyl)-4-methylcyclopentyl)pyrimidine-2(1*H*)-one

Ee = 100%

$[\alpha]_D^{26} = -39.15$ (*c* 0.51, MeOH)

Source of chirality: asymmetric synthesis

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