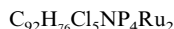
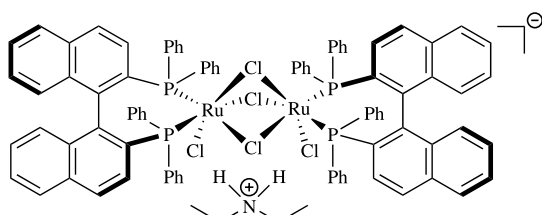
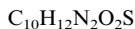
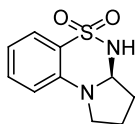


Lisa DiMichele,* Steven A. King and Alan W. Douglas

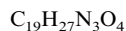
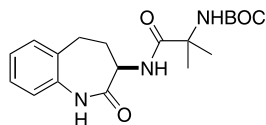
Tetrahedron: Asymmetry 14 (2003) 3427*N*-Ethylethanamine hydrogen bis[(*S*)[1,1'-binaphthalene]-2,2'-diylbis[diphenylphosphine-κ*P*]]tri-μ-chlorodichlorodiruthenate(1-) (1:1)

$$[\alpha]_{\text{D}}^{20} = -610 \text{ (} c \text{ 0.12, CH}_2\text{Cl}_2 \text{)}$$

Christopher J. Cobley, Elsa Foucher, Jean-Pierre Lecouve,
Ian C. Lennon,* James A. Ramsden* and Gilles Thominet*Tetrahedron: Asymmetry 14 (2003) 3431**(S)*-2,3,3a,4-Tetrahydro-1*H*-pyrrolo[2,1-*c*][1,2,4]benzothiadiazine-5,5-dioxide

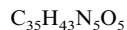
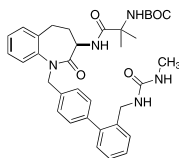
Ee >99%

$$[\alpha]_{\text{D}}^{20} = +260 \text{ (} c \text{ 0.5, 95\% ethanol)}$$

Source of chirality: [(*R*)-BINAP RuCl₂ (*R,R*)-DPEN] precatalyst (asymmetric hydrogenation)Nan Zheng,* Joseph D. Armstrong, III,* Kan K. Eng,
Jennifer Keller, Tom Liu, Robert Purick, Joseph Lynch,
Frederick W. Hartner and R. P. Volante*Tetrahedron: Asymmetry 14 (2003) 3435*[1,1-Dimethyl-2-oxo-2-(((3*R*)-2,3,4,5-tetrahydro-2-oxo-1*H*-1-benzazapin-3-yl)amino)ethyl]carbamic acid (1,1-dimethylethyl) ester

E.e. >99%

$$[\alpha]_{\text{D}}^{25} = +192.1 \text{ (} c \text{ 1.02, methanol)}$$

Absolute configuration: *R*Nan Zheng,* Joseph D. Armstrong, III,* Kan K. Eng,
Jennifer Keller, Tom Liu, Robert Purick, Joseph Lynch,
Frederick W. Hartner and R. P. Volante*Tetrahedron: Asymmetry 14 (2003) 3435*[1,1-Dimethyl-2-oxo-2-(((3*R*)-2,3,4,5-tetrahydro-1-[[2'-[[[(methylamino)carbonyl]amino]methyl][1,1'-biphenyl]-4-yl]-methyl]-2-oxo-1*H*-1-benzazapin-3-yl)amino)ethyl]carbamic acid (1,1-dimethylethyl) ester

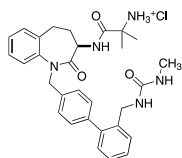
E.e. >99%

$$[\alpha]_{\text{D}}^{25} = +100 \text{ (} c \text{ 1.04, methanol)}$$

Absolute configuration: *R*

Nan Zheng,* Joseph D. Armstrong, III,* Kan K. Eng,
Jennifer Keller, Tom Liu, Robert Purick, Joseph Lynch,
Frederick W. Hartner and R. P. Volante

Tetrahedron: Asymmetry 14 (2003) 3435



$C_{30}H_{36}ClN_5O_3$

2-Amino-2-methyl-N-[(3*R*)-2,3,4,5-tetrahydro-1-[[2'-[[[(methylaminocarbonyl)amino]methyl][1,1'-biphenyl]-4-yl]-methyl]-2-oxo-1*H*-1-benzazapin-3-yl]propanamide monohydrochloride

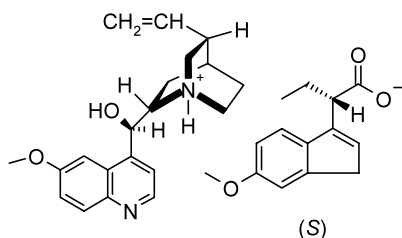
E.e. >99%

$[\alpha]_D^{25} = +119.2$ (*c* 1.04, methanol)

Absolute configuration: *R*

Mingbao Zhang,* Lei Zhu and Xin Ma

Tetrahedron: Asymmetry 14 (2003) 3447



$C_{34}H_{40}N_2O_5$

Quinine salt of (2*S*)-2-(6-methoxy-1*H*-inden-3-yl)butanoic acid

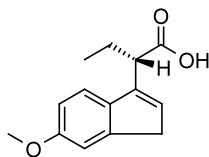
Ee=96.8% (analyzed as the free indene acid by chiral HPLC)

$[\alpha]_D^{20} = -64.4$ (*c* 1.02, CH_2Cl_2)

Source of chirality: chiral resolution

Mingbao Zhang,* Lei Zhu and Xin Ma

Tetrahedron: Asymmetry 14 (2003) 3447



$C_{14}H_{16}O_3$

(2*S*)-2-(6-Methoxy-1*H*-inden-3-yl)butanoic acid

Ee=96.8%

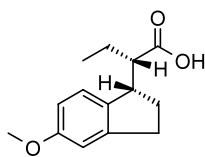
$[\alpha]_D^{20} = +51.8$ (*c* 1.05, $CHCl_3$)

Source of chirality: chiral resolution

Absolute configuration: (*S*)

Mingbao Zhang,* Lei Zhu and Xin Ma

Tetrahedron: Asymmetry 14 (2003) 3447



$C_{14}H_{18}O_3$

(2*S*)-2-[(1*S*)-5-Methoxy-2,3-dihydro-1*H*-inden-1-yl]butanoic acid

Ee=96.8%

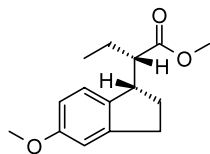
$[\alpha]_D^{20} = +24.4$ (*c* 1.07, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S,S*)

Mingbao Zhang,* Lei Zhu and Xin Ma

Tetrahedron: Asymmetry 14 (2003) 3447



$C_{15}H_{20}O_3$

Methyl (2S)-2-[(1S)-5-methoxy-2,3-dihydro-1H-inden-1-yl]butanoate

Ee = 96.8%

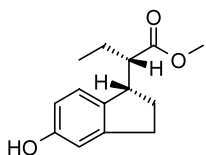
$[\alpha]_D^{20} = +29.3$ (c 1.01, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (S,S)

Mingbao Zhang,* Lei Zhu and Xin Ma

Tetrahedron: Asymmetry 14 (2003) 3447



$C_{14}H_{18}O_3$

Methyl (2S)-2-[(1S)-5-hydroxy-2,3-dihydro-1H-inden-1-yl]butanoate

Ee = 96.8%

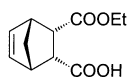
$[\alpha]_D^{20} = +29.3$ (c 1.00, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (S,S)

Carsten Bolm,* Ingo Schiffers, Iuliana Atodiresei and
Christian P. R. Hackenberger

Tetrahedron: Asymmetry 14 (2003) 3455



$C_{11}H_{14}O_4$

(2R,3S)-3-endo-Ethoxycarbonyl-bicyclo[2.2.1]hept-5-ene-2-endo-carboxylic acid

E.e. = 89%

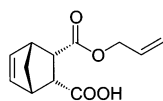
$[\alpha]_D^{25} = -5.8$ (c 3.13, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (2R,3S)

Carsten Bolm,* Ingo Schiffers, Iuliana Atodiresei and
Christian P. R. Hackenberger

Tetrahedron: Asymmetry 14 (2003) 3455



$C_{12}H_{14}O_4$

(2R,3S)-3-endo-Allyloxycarbonyl-bicyclo[2.2.1]hept-5-ene-2-endo-carboxylic acid

E.e. = 97%

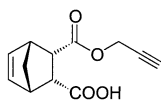
$[\alpha]_D^{25} = -1.7$ (c 3.20, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (2R,3S)

Carsten Bolm,* Ingo Schiffers, Iuliana Atodiresei and
Christian P. R. Hackenberger

Tetrahedron: Asymmetry 14 (2003) 3455



$C_{12}H_{12}O_4$

(2*R*,3*S*)-3-*endo*-Propargyloxycarbonyl-bicyclo[2.2.1]hept-5-ene-2-*endo*-carboxylic acid

E.e. = 79%

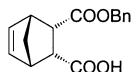
$[\alpha]_D^{25} = -1.4$ (c 3.06, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Carsten Bolm,* Ingo Schiffers, Iuliana Atodiresei and
Christian P. R. Hackenberger

Tetrahedron: Asymmetry 14 (2003) 3455



$C_{16}H_{16}O_4$

(2*R*,3*S*)-3-*endo*-Benzyloxycarbonyl-bicyclo[2.2.1]hept-5-ene-2-*endo*-carboxylic acid

E.e. = 97%

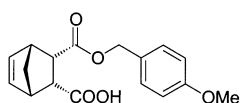
$[\alpha]_D^{25} = +8.0$ (c 1.95, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Carsten Bolm,* Ingo Schiffers, Iuliana Atodiresei and
Christian P. R. Hackenberger

Tetrahedron: Asymmetry 14 (2003) 3455



$C_{17}H_{18}O_5$

(2*R*,3*S*)-3-*endo*-(4-Methoxy-benzyloxycarbonyl)-bicyclo[2.2.1]hept-5-ene-2-*endo*-carboxylic acid

E.e. = 97%

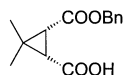
$[\alpha]_D^{25} = +7.3$ (c 3.06, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Carsten Bolm,* Ingo Schiffers, Iuliana Atodiresei and
Christian P. R. Hackenberger

Tetrahedron: Asymmetry 14 (2003) 3455



$C_{14}H_{16}O_4$

(1*S*,2*R*)-*cis*-2-Benzyloxycarbonyl-3,3-dimethylcyclopropane-1-carboxylic acid

E.e. = 92%

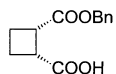
$[\alpha]_D^{25} = -1.8$ (c 1.58, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Carsten Bolm,* Ingo Schiffrers, Iuliana Atodiresei and
Christian P. R. Hackenberger

Tetrahedron: Asymmetry 14 (2003) 3455



$C_{13}H_{14}O_4$

(1*R*,2*S*)-*cis*-2-Benzyloxycarbonyl-cyclobutane-1-carboxylic acid

E.e. = 93%

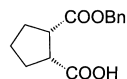
$[\alpha]_D^{25} = -10.9$ (c 1.75, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Carsten Bolm,* Ingo Schiffrers, Iuliana Atodiresei and
Christian P. R. Hackenberger

Tetrahedron: Asymmetry 14 (2003) 3455



$C_{14}H_{16}O_4$

(1*R*,2*S*)-*cis*-2-Benzyloxycarbonyl-cyclopentane-1-carboxylic acid

E.e. = 97%

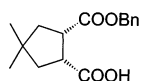
$[\alpha]_D^{25} = +0.6$ (c 1.65, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Carsten Bolm,* Ingo Schiffrers, Iuliana Atodiresei and
Christian P. R. Hackenberger

Tetrahedron: Asymmetry 14 (2003) 3455



$C_{11}H_{14}O_4$

(1*R*,2*S*)-*cis*-2-Benzyloxycarbonyl-4,4-dimethylcyclopentane-1-carboxylic acid

E.e. = 97%

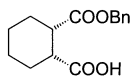
$[\alpha]_D^{25} = +4.2$ (c 1.00, MeOH)

Source of chirality: asymmetric synthesis

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

Carsten Bolm,* Ingo Schiffrers, Iuliana Atodiresei and
Christian P. R. Hackenberger

Tetrahedron: Asymmetry 14 (2003) 3455



$C_{15}H_{18}O_4$

(1*R*,2*S*)-*cis*-2-Benzyloxycarbonyl-cyclohexane-1-carboxylic acid

E.e. = 95%

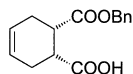
$[\alpha]_D^{25} = +2.9$ (c 1.95, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Carsten Bolm,* Ingo Schiffrers, Iuliana Atodiresei and
Christian P. R. Hackenberger

Tetrahedron: Asymmetry 14 (2003) 3455



$C_{15}H_{16}O_4$

(1*R*,2*S*)-*cis*-2-Benzyloxycarbonyl-cyclohex-4-ene-1-carboxylic acid

E.e. = 94%

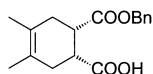
$[\alpha]_D^{25} = +11.0$ (*c* 1.13, MeOH)

Source of chirality: asymmetric synthesis

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

Carsten Bolm,* Ingo Schiffrers, Iuliana Atodiresei and
Christian P. R. Hackenberger

Tetrahedron: Asymmetry 14 (2003) 3455



$C_{17}H_{20}O_4$

(1*R*,2*S*)-*cis*-2-Benzyloxycarbonyl-4,5-dimethylcyclohex-4-ene-1-carboxylic acid

E.e. = 98%

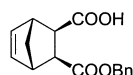
$[\alpha]_D^{25} = +1.9$ (*c* 4.87, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Carsten Bolm,* Ingo Schiffrers, Iuliana Atodiresei and
Christian P. R. Hackenberger

Tetrahedron: Asymmetry 14 (2003) 3455



$C_{16}H_{16}O_4$

(2*R*,3*S*)-3-*exo*-Benzyloxycarbonyl-bicyclo[2.2.1]hept-5-ene-2-*exo*-carboxylic acid

E.e. = 96%

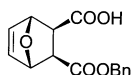
$[\alpha]_D^{25} = -24.6$ (*c* 1.17, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Carsten Bolm,* Ingo Schiffrers, Iuliana Atodiresei and
Christian P. R. Hackenberger

Tetrahedron: Asymmetry 14 (2003) 3455



$C_{15}H_{14}O_5$

(2*S*,3*R*)-3-*exo*-Benzyloxycarbonyl-7-oxabicyclo[2.2.1]hept-5-ene-2-*exo*-carboxylic acid

E.e. = 99%

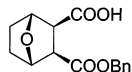
$[\alpha]_D^{25} = -27.8$ (*c* 3.23, MeOH)

Source of chirality: asymmetric synthesis

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

Carsten Bolm,* Ingo Schiffrers, Iuliana Atodiresei and
Christian P. R. Hackenberger

Tetrahedron: Asymmetry 14 (2003) 3455



$C_{15}H_{16}O_5$

(2*S*,3*R*)-3-*exo*-Benzoyloxycarbonyl-7-oxabicyclo[2.2.1]heptane-2-*exo*-carboxylic acid

E.e. = 96%

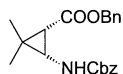
$[\alpha]_D^{25} = -10.8$ (*c* 1.00, MeOH)

Source of chirality: asymmetric synthesis

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

Carsten Bolm,* Ingo Schiffrers, Iuliana Atodiresei and
Christian P. R. Hackenberger

Tetrahedron: Asymmetry 14 (2003) 3455



$C_{21}H_{23}NO_4$

(1*R*,2*S*)-*cis*-2-Benzoyloxycarbonylamino-3,3-dimethylcyclopropane-1-carboxylic acid benzyl ester

E.e. = 19%

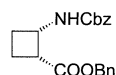
$[\alpha]_D^{25} = -7.3$ (*c* 5.00, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Carsten Bolm,* Ingo Schiffrers, Iuliana Atodiresei and
Christian P. R. Hackenberger

Tetrahedron: Asymmetry 14 (2003) 3455



$C_{20}H_{21}NO_4$

(1*R*,2*S*)-*cis*-2-Benzoyloxycarbonylamino-cyclobutane-1-carboxylic acid benzyl ester

E.e. = 93%

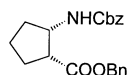
$[\alpha]_D^{25} = -61.6$ (*c* 5.00, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Carsten Bolm,* Ingo Schiffrers, Iuliana Atodiresei and
Christian P. R. Hackenberger

Tetrahedron: Asymmetry 14 (2003) 3455



$C_{21}H_{23}NO_4$

(1*R*,2*S*)-*cis*-2-Benzoyloxycarbonylamino-cyclopentane-1-carboxylic acid benzyl ester

E.e. = 94%

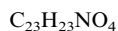
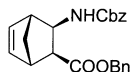
$[\alpha]_D^{25} = -41.1$ (*c* 1.83, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Carsten Bolm,* Ingo Schiffers, Iuliana Atodiresei and
Christian P. R. Hackenberger

Tetrahedron: Asymmetry 14 (2003) 3455



(2*S*,3*R*)-3-*exo*-Benzoyloxycarbonyl-bicyclo[2.2.1]hept-5-ene-2-*exo*-carboxylic acid benzyl ester

E.e. = 93%

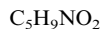
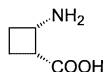
$[\alpha]_D^{25} = +17.4$ (c 2.63, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Carsten Bolm,* Ingo Schiffers, Iuliana Atodiresei and
Christian P. R. Hackenberger

Tetrahedron: Asymmetry 14 (2003) 3455



(1*R*,2*S*)-*cis*-2-Amino-cyclobutane-1-carboxylic acid

E.e. = 93%

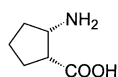
$[\alpha]_D^{25} = -80.0$ (c 1.00, H_2O)

Source of chirality: asymmetric synthesis

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

Carsten Bolm,* Ingo Schiffers, Iuliana Atodiresei and
Christian P. R. Hackenberger

Tetrahedron: Asymmetry 14 (2003) 3455



(1*R*,2*S*)-*cis*-2-Amino-cyclopentane-1-carboxylic acid

E.e. = 94%

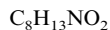
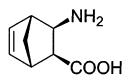
$[\alpha]_D^{25} = -10.1$ (c 2.81, H_2O)

Source of chirality: asymmetric synthesis

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

Carsten Bolm,* Ingo Schiffers, Iuliana Atodiresei and
Christian P. R. Hackenberger

Tetrahedron: Asymmetry 14 (2003) 3455



(2*S*,3*R*)-3-*exo*-Amino-bicyclo[2.2.1]heptane-2-*exo*-carboxylic acid benzyl ester

E.e. = 93%

$[\alpha]_D^{25} = -8.0$ (c 1.40, H_2O)

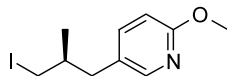
Source of chirality: asymmetric synthesis

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

Markus Bänziger,* Jacques Cercus, Hans Hirt, Kurt Laumen,
Christophe Malan, Felix Spindler, Fritz Struber and Thomas Troxler*

Tetrahedron: Asymmetry 14 (2003) 3469

Ee 99.6%
[α]_D²⁵ = +25.4 (c 1.0, MeOH)



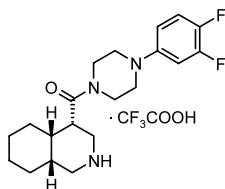
C₁₀H₁₄INO

5-((S)-3-Iodo-2-methyl-propyl)-2-methoxy-pyridine

Markus Bänziger,* Jacques Cercus, Hans Hirt, Kurt Laumen,
Christophe Malan, Felix Spindler, Fritz Struber and Thomas Troxler*

Tetrahedron: Asymmetry 14 (2003) 3469

Ee >99.9%
[α]_D²⁵ = +20.8 (c 1.0, MeOH)



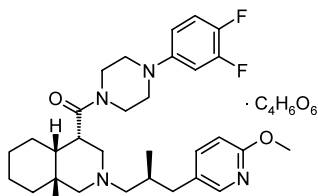
C₂₀H₂₇F₂N₃O

(4S,4aS,8aR)-Decahydro-isoquinoline-4-yl-[4-(3,4-difluorophenyl)-piperazine-1-yl]-methanone

Markus Bänziger,* Jacques Cercus, Hans Hirt, Kurt Laumen,
Christophe Malan, Felix Spindler, Fritz Struber and Thomas Troxler*

Tetrahedron: Asymmetry 14 (2003) 3469

Ee >99.8%
[α]_D²⁵ = +15 (c 1, EtOH)

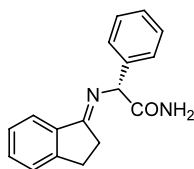


C₃₄H₄₆F₂N₄O₈

[4-(3,4-Difluoro-phenyl)-piperazine-1-yl]-{(4S,4aS,8aR)-2[(S)-3-(6-methoxy-pyridin-3-yl)2-methyl-propyl]-decahydro-isoquinoline-4-yl}-methanone tartrate salt

Patrick G. H. Uiterweerd, Marcel van der Sluis, Bernard Kaptein,
Ben de Lange, Richard M. Kellogg and Quirinus B. Broxterman*

Tetrahedron: Asymmetry 14 (2003) 3479



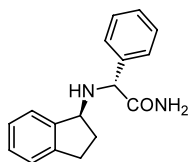
C₁₇H₁₆N₂O

2-(Indan-1-ylideneamino)-(R)-2-phenyl-acetamide

Ee = 99%
[α]_D²³ = -45.0 (c 1.0, CHCl₃)
Source of chirality: asymmetric synthesis
Absolute configuration: (R)

Patrick G. H. Uiterweerd, Marcel van der Sluis, Bernard Kaptein,
Ben de Lange, Richard M. Kellogg and Quirinus B. Broxterman*

Tetrahedron: Asymmetry 14 (2003) 3479



$C_{17}H_{18}N_2O$

(*S*)-2-(Indan-1-ylamino)-(*R*)-2-phenyl-acetamide

Ee = 98%

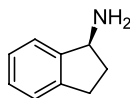
$[\alpha]_D^{23} = -6.00$ (*c* 1.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R,S*)

Patrick G. H. Uiterweerd, Marcel van der Sluis, Bernard Kaptein,
Ben de Lange, Richard M. Kellogg and Quirinus B. Broxterman*

Tetrahedron: Asymmetry 14 (2003) 3479



$C_9H_{11}N$

(*S*)-1-Aminoindane

Ee = 96%

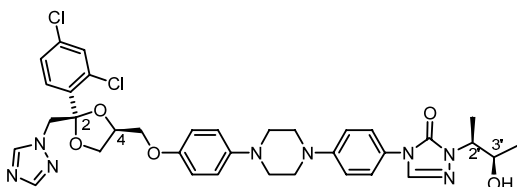
$[\alpha]_D^{23} = +20.0$ (*c* 1.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Gerald J. Tanoury,* Robert Hett, H. Scott Wilkinson,
Stephen A. Wald and Chris H. Senanayake*

Tetrahedron: Asymmetry 14 (2003) 3487



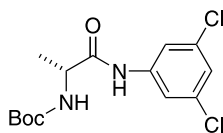
$C_{35}H_{38}Cl_2N_8O_5$

(*2R,4S,2'S,3'R*)-Hydroxyitraconazole

$[\alpha]_D^{25} = +12.7$ (*c* 0.1, MeOH)

Nathan K. Yee,* Laurence J. Nummy, Rogelio P. Frutos,
Jinhua J. Song, Elio Napolitano, Denis P. Byrne, Paul-James Jones
and Vittorio Farina

Tetrahedron: Asymmetry 14 (2003) 3495



$C_{14}H_{18}Cl_2N_2O_3$

(*1R*)-[1-(3,5-Dichloro-phenylcarbamoyl)-ethyl]-carbamic acid *tert*-butyl ester

Ee > 99%

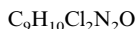
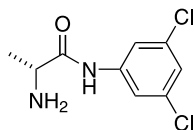
$[\alpha]_D^{20} = +72.0$ (*c* 1.07, CH_2Cl_2)

Source of chirality: Boc-D-alanine

Absolute configuration: 1*R*

Nathan K. Yee,* Laurence J. Nummy, Rogelio P. Frutos,
Jinhua J. Song, Elio Napolitano, Denis P. Byrne, Paul-James Jones
and Vittorio Farina

Tetrahedron: Asymmetry 14 (2003) 3495



(2*R*)-2-Amino-*N*-(3,5-dichlorophenyl)-propionamide

Ee >99%

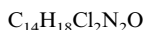
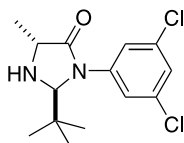
$[\alpha]_D^{20} = +0.4$ (c 1.10, CH_2Cl_2)

Source of chirality: Boc-D-alanine

Absolute configuration: 2*R*

Nathan K. Yee,* Laurence J. Nummy, Rogelio P. Frutos,
Jinhua J. Song, Elio Napolitano, Denis P. Byrne, Paul-James Jones
and Vittorio Farina

Tetrahedron: Asymmetry 14 (2003) 3495



(2*S*,5*R*)-2-*tert*-Butyl-3-(3,5-dichlorophenyl)-5-methyl-imidazolidin-4-one

Ee >99%

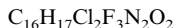
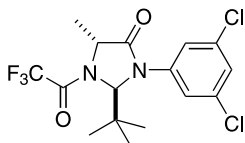
$[\alpha]_D^{20} = -12.1$ (c 1.30, CH_2Cl_2)

Source of chirality: Boc-D-alanine

Absolute configuration: 2*S*,5*R*

Nathan K. Yee,* Laurence J. Nummy, Rogelio P. Frutos,
Jinhua J. Song, Elio Napolitano, Denis P. Byrne, Paul-James Jones
and Vittorio Farina

Tetrahedron: Asymmetry 14 (2003) 3495



(2*R*,5*R*)-2-*tert*-Butyl-3-(3,5-dichlorophenyl)-5-methyl-1-trifluoroacetyl-imidazolidin-4-one

Ee >99%

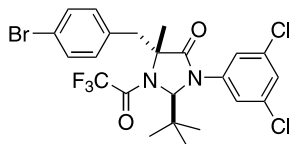
$[\alpha]_D^{20} = +119.1$ (c 1.25, CH_2Cl_2)

Source of chirality: Boc-D-alanine

Absolute configuration: 2*R*,5*R*

Nathan K. Yee,* Laurence J. Nummy, Rogelio P. Frutos,
Jinhua J. Song, Elio Napolitano, Denis P. Byrne, Paul-James Jones
and Vittorio Farina

Tetrahedron: Asymmetry 14 (2003) 3495



(2*R*,5*R*)-5-(4-Bromo-benzyl)-2-*tert*-butyl-3-(3,5-dichlorophenyl)-5-methyl-1-trifluoroacetyl-imidazolidin-4-one

Ee >99%

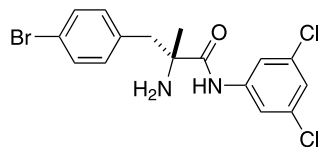
$[\alpha]_D^{20} = +89.8$ (c 1.01, CH_2Cl_2)

Source of chirality: Boc-D-alanine

Absolute configuration: 2*R*,5*R*

Nathan K. Yee,* Laurence J. Nummy, Rogelio P. Frutos,
Jinhua J. Song, Elio Napolitano, Denis P. Byrne, Paul-James Jones
and Vittorio Farina

Tetrahedron: Asymmetry 14 (2003) 3495



(2*R*)-2-Amino-3-(4-bromophenyl)-*N*-(3,5-dichlorophenyl)-2-methyl-propionamide

Ee >99%

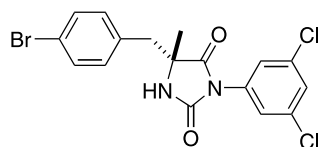
$[\alpha]_D^{20} = +176.6$ (c 1.07, CH_2Cl_2)

Source of chirality: Boc-D-alanine

Absolute configuration: 2*R*

Nathan K. Yee,* Laurence J. Nummy, Rogelio P. Frutos,
Jinhua J. Song, Elio Napolitano, Denis P. Byrne, Paul-James Jones
and Vittorio Farina

Tetrahedron: Asymmetry 14 (2003) 3495



(5*R*)-5-(4-Bromobenzyl)-3-(3,5-dichlorophenyl)-5-methyl-imidazolidine-2,4-dione

Ee >99%

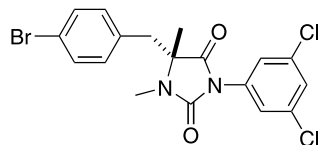
$[\alpha]_D^{20} = -120.0$ (c 1.02, CH_2Cl_2)

Source of chirality: Boc-D-alanine

Absolute configuration: 5*R*

Nathan K. Yee,* Laurence J. Nummy, Rogelio P. Frutos,
Jinhua J. Song, Elio Napolitano, Denis P. Byrne, Paul-James Jones
and Vittorio Farina

Tetrahedron: Asymmetry 14 (2003) 3495



(5*R*)-5-(4-Bromobenzyl)-3-(3,5-dichlorophenyl)-1,5-dimethyl-imidazolidine-2,4-dione

Ee >99%

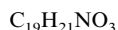
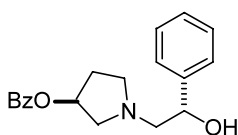
$[\alpha]_D^{25} = +127.3$ (c 0.78, EtOH)

Source of chirality: Boc-D-alanine

Absolute configuration: 5*R*

Michel Couturier,* John L. Tucker, Brian M. Andresen,
Keith M. DeVries, Brian C. Vanderplas and Fumitaka Ito

Tetrahedron: Asymmetry 14 (2003) 3517



3-Benzoyloxy-*N*-(2-hydroxy-2-phenyl)ethylpyrrolidine

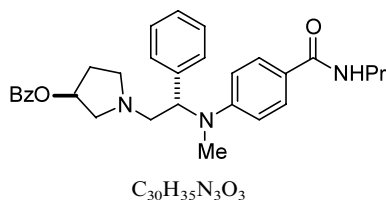
$[\alpha]_D^{22} = +44.8$ (c 1, MeOH)

Source of chirality: (*S*)-3-benzoyloxypyrrolidine and
(*S*)-styrene oxide

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

Michel Couturier,* John L. Tucker, Brian M. Andresen,
Keith M. DeVries, Brian C. Vanderplas and Fumitaka Ito

Tetrahedron: Asymmetry 14 (2003) 3517



3-Benzoyloxy-*N*-{2-[*N*-methyl-*N*-4-(*N*-propylaminocarbonyl)phenyl]amino-2-phenyl}ethylpyrrolidine

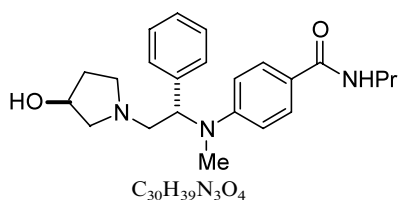
$[\alpha]_D^{22} = +161.9$ (*c* 1.1, MeOH)

Source of chirality: (2'*S*,3'*S*)-3-benzoyloxy-*N*-(2-hydroxy-2-phenyl)ethylpyrrolidine

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

Michel Couturier,* John L. Tucker, Brian M. Andresen,
Keith M. DeVries, Brian C. Vanderplas and Fumitaka Ito

Tetrahedron: Asymmetry 14 (2003) 3517



(2'*S*,3'*S*)-3-Hydroxy-*N*-{2-[*N*-methyl-*N*-4-(*N*-propylaminocarbonyl)phenyl]amino-2-phenyl}-ethylpyrrolidinium benzoate hydrate

Ee >99%

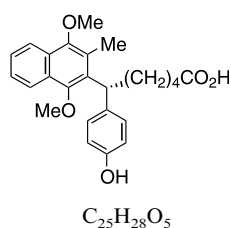
$[\alpha]_D^{22} = +168.4$ (*c* 1.1, MeOH)

Source of chirality: (2'*S*,3'*S*)-3-benzoyloxy-*N*-{2-[*N*-methyl-*N*-4-(*N*-propylaminocarbonyl)phenyl]amino-2-phenyl}ethylpyrrolidine

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

Tatsuya Ito,* Tomomi Ikemoto, Toru Yamano, Yukio Mizuno
and Kiminori Tomimatsu

Tetrahedron: Asymmetry 14 (2003) 3525



(*R*)-(+)-6-(1,4-Dimethoxy-3-methyl-2-naphthyl)-6-(4-hydroxyphenyl)hexanoic acid

Ee = 98%

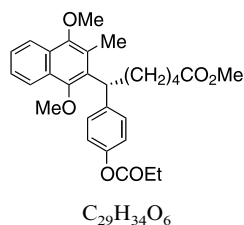
$[\alpha]_D^{20} = +135.3$ (*c* 0.238, MeOH)

Source of chirality: optical resolution

Absolute configuration: (*R*)

Tatsuya Ito,* Tomomi Ikemoto, Toru Yamano, Yukio Mizuno
and Kiminori Tomimatsu

Tetrahedron: Asymmetry 14 (2003) 3525



(*R*)-(+)-Methyl 6-(1,4-dimethoxy-3-methyl-2-naphthyl)-6-(4-(propionyloxy)phenyl) hexanoate

Ee = 99%

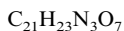
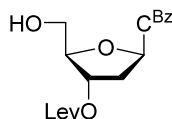
$[\alpha]_D^{20} = +81.1$ (*c* 0.227, AcOEt)

Source of chirality: optical resolution

Absolute configuration: (*R*)

Javier García, Susana Fernández, Miguel Ferrero, Yogesh S. Sanghvi* and Vicente Gotor*

Tetrahedron: Asymmetry 14 (2003) 3533



N-Benzoyl-3'-*O*-levulinyl-2'-deoxycytidine

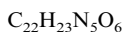
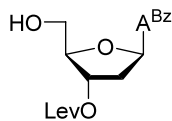
$[\alpha]_D^{20} = +20.5$ (*c* 1.0, MeOH)

Source of chirality: β -D-2'-deoxycytidine

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

Javier García, Susana Fernández, Miguel Ferrero, Yogesh S. Sanghvi* and Vicente Gotor*

Tetrahedron: Asymmetry 14 (2003) 3533



N-Benzoyl-3'-*O*-levulinyl-2'-deoxyadenosine

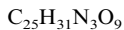
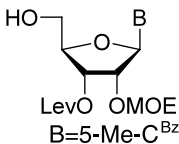
$[\alpha]_D^{20} = -26.7$ (*c* 0.9, CHCl₃)

Source of chirality: β -D-2'-deoxyadenosine

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

Javier García, Susana Fernández, Miguel Ferrero, Yogesh S. Sanghvi* and Vicente Gotor*

Tetrahedron: Asymmetry 14 (2003) 3533



N-Benzoyl-3'-*O*-levulinyl-2'-*O*-(2-methoxyethyl)-5-methylcytidine

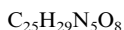
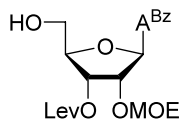
$[\alpha]_D^{20} = +55.7$ (*c* 0.4, MeOH)

Source of chirality: β -D-2'-*O*-(2-methoxyethyl)-5-methylcytidine

Absolute configuration: 1'*R*,2'*R*,3'*R*,4'*R*

Javier García, Susana Fernández, Miguel Ferrero, Yogesh S. Sanghvi* and Vicente Gotor*

Tetrahedron: Asymmetry 14 (2003) 3533



N-Benzoyl-3'-*O*-levulinyl-2'-*O*-(2-methoxyethyl)adenosine

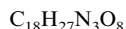
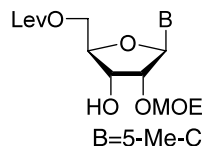
$[\alpha]_D^{20} = -30.6$ (*c* 0.4, MeOH)

Source of chirality: β -D-2'-*O*-(2-methoxyethyl)adenosine

Absolute configuration: 1'*R*,2'*R*,3'*R*,4'*R*

Javier García, Susana Fernández, Miguel Ferrero, Yogesh S. Sanghvi* and Vicente Gotor*

Tetrahedron: Asymmetry 14 (2003) 3533



5'-O-Levulinyl-2'-O-(2-methoxyethyl)-5-methylcytidine

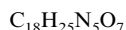
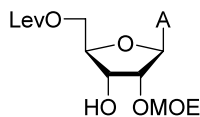
$[\alpha]_D^{20} = +32.9$ (c 0.4, MeOH)

Source of chirality: β -D-2'-O-(2-methoxyethyl)-5-methylcytidine

Absolute configuration: 1'R,2'R,3'R,4'R

Javier García, Susana Fernández, Miguel Ferrero, Yogesh S. Sanghvi* and Vicente Gotor*

Tetrahedron: Asymmetry 14 (2003) 3533



5'-O-Levulinyl-2'-O-(2-methoxyethyl)adenosine

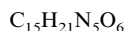
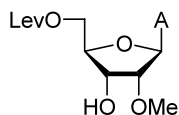
$[\alpha]_D^{20} = -40.0$ (c 2.7, MeOH)

Source of chirality: β -D-2'-O-(2-methoxyethyl)adenosine

Absolute configuration: 1'R,2'R,3'R,4'R

Javier García, Susana Fernández, Miguel Ferrero, Yogesh S. Sanghvi* and Vicente Gotor*

Tetrahedron: Asymmetry 14 (2003) 3533



5'-O-Levulinyl-2'-O-methyladenosine

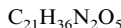
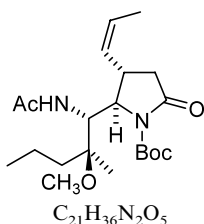
$[\alpha]_D^{20} = -15.2$ (c 0.5, MeOH)

Source of chirality: β -D-2'-O-methyladenosine

Absolute configuration: 1'R,2'R,3'R,4'R

David M. Barnes, Lakshmi Bhagavatula, John DeMattei, Ashok Gupta, David R. Hill, Sukumar Manna, Maureen A. McLaughlin, Paul Nichols, Ramiya Premchandran, Michael W. Rasmussen, Zhenping Tian and Steven J. Wittenberger*

Tetrahedron: Asymmetry 14 (2003) 3541



tert-Butyl (2R,3S)-2-[(1R,2S)-2-methoxy-2-methyl-1-[(acetylamino)pentyl]-5-oxo-3-[(1Z)-prop-1-enyl]pyrrolidine-1-carboxylate

Ee = 99%

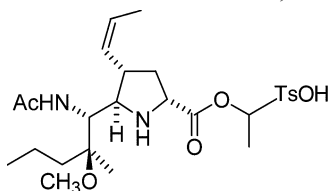
$[\alpha]_D^{25} = +48.8$ (c 1.04, CHCl₃)

Source of chirality: asymmetric synthesis

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

David M. Barnes, Lakshmi Bhagavatula, John DeMattei,
Ashok Gupta, David R. Hill, Sukumar Manna,
Maureen A. McLaughlin, Paul Nichols, Ramiya Premchandran,
Michael W. Rasmussen, Zhenping Tian and Steven J. Wittenberger*

Tetrahedron: Asymmetry 14 (2003) 3541



$C_{27}H_{44}N_2O_7S$

(2*R*,4*S*,5*R*,1'*R*,2'*S*)-5-(1'-Acetylamino-2'-methoxy-2'-methyl-pentyl)-4-(*Z*)-propenyl-pyrrolidine-2-carboxylic acid isopropyl ester, 4-methylbenzenesulfonate

Ee >99%

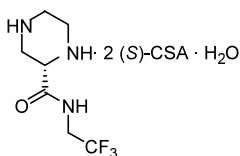
$[\alpha]_D^{25} = -31.4$ (c 1.04, MeOH)

Source of chirality: asymmetric synthesis

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

Donald R. Gauthier, Jr.,* Norihiro Ikemoto, Fred J. Fleitz,
Ronald H. Szumigala, Jr., Dan Petrillo, Jinchu Liu, Robert A. Reamer,
Joseph D. Armstrong, III, Peter M. Yehl, Naijun Wu and R. P. Volante

Tetrahedron: Asymmetry 14 (2003) 3557



$C_{27}H_{46}F_3N_3O_{10}S_2$

(2*S*)-*N*-(2,2,2-Trifluoroethyl)piperazine-2-carboxamide bis-(1*S*)-(+)-10-camphorsulfonic acid salt, monohydrate

E.e. = 98.6%

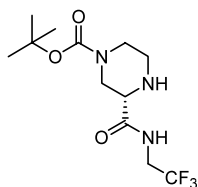
$[\alpha]_D^{25} = +31.1$ (c 1, methanol)

Source of chirality: resolution with chiral acid

Absolute configuration: *S*

Donald R. Gauthier, Jr.,* Norihiro Ikemoto, Fred J. Fleitz,
Ronald H. Szumigala, Jr., Dan Petrillo, Jinchu Liu, Robert A. Reamer,
Joseph D. Armstrong, III, Peter M. Yehl, Naijun Wu and R. P. Volante

Tetrahedron: Asymmetry 14 (2003) 3557



$C_{12}H_{20}F_3N_3O_3$

tert-Butyl-(2*S*)-2-([(2,2,2-trifluoroethyl)amino]carbonyl)-piperazine-1-carboxylate

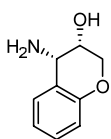
E.e. = 98.6%

$[\alpha]_D^{25} = +20.2$ (c 1, methanol)

Absolute configuration: *S*

Donald R. Gauthier, Jr.,* Norihiro Ikemoto, Fred J. Fleitz,
Ronald H. Szumigala, Jr., Dan Petrillo, Jinchu Liu, Robert A. Reamer,
Joseph D. Armstrong, III, Peter M. Yehl, Naijun Wu and R. P. Volante

Tetrahedron: Asymmetry 14 (2003) 3557



$C_9H_{11}NO_2$

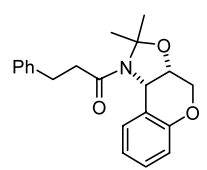
(3*S*,4*S*)-4-Aminochroman-3-ol

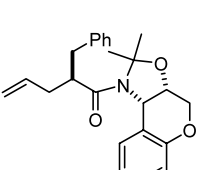
E.e. >99%

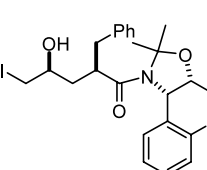
$[\alpha]_{405}^{25} = -177.9$ (c 1, methanol)

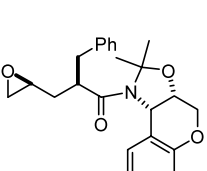
Source of chirality: resolution with chiral acid

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

Donald R. Gauthier, Jr.,* Norihiro Ikemoto, Fred J. Fleitz, Ronald H. Szumigala, Jr., Dan Petrillo, Jinchu Liu, Robert A. Reamer, Joseph D. Armstrong, III, Peter M. Yehl, Naijun Wu and R. P. Volante	<i>Tetrahedron: Asymmetry 14 (2003) 3557</i>
 $C_{21}H_{23}NO_3$ (3aS,9bS)-2,2-Dimethyl-1-(3-phenylpropanoyl)-1,3a,4,9b-tetrahydro-2H-chromeno[4,3-d][1,3]oxazole	E.e. >99% $[\alpha]_D^{25} = +62$ (c 0.24, DCM) Source of chirality: <i>cis</i>-aminochromanol Absolute configuration: 3aS,9bS

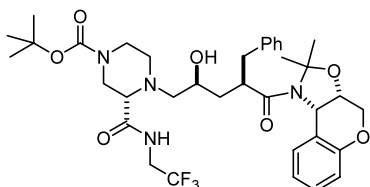
Donald R. Gauthier, Jr.,* Norihiro Ikemoto, Fred J. Fleitz, Ronald H. Szumigala, Jr., Dan Petrillo, Jinchu Liu, Robert A. Reamer, Joseph D. Armstrong, III, Peter M. Yehl, Naijun Wu and R. P. Volante	<i>Tetrahedron: Asymmetry 14 (2003) 3557</i>
 $C_{24}H_{27}NO_3$ (3aS,9bS)-1-[(2S)-2-Benzylpent-4-enoyl]-2,2-dimethyl-1,3a,4,9b-tetrahydro-2H-chromeno[4,3-d][1,3]oxazole	D.e. = 99% $[\alpha]_D^{25} = +84$ (c 0.38, DCM) Source of chirality: <i>cis</i>-aminochromanol Absolute configuration: 3aS,9bS,2S

Donald R. Gauthier, Jr.,* Norihiro Ikemoto, Fred J. Fleitz, Ronald H. Szumigala, Jr., Dan Petrillo, Jinchu Liu, Robert A. Reamer, Joseph D. Armstrong, III, Peter M. Yehl, Naijun Wu and R. P. Volante	<i>Tetrahedron: Asymmetry 14 (2003) 3557</i>
 $C_{24}H_{28}INO_4$ (2S,4R)-4-Benzyl-5-[(3aS,9bS)-2,2-dimethyl-3a,9b-dihydro-2H-chromeno[4,3-d][1,3]-oxazol-1(4H)-yl]-1-iodo-5-oxopent-2-en-1-ol	D.e. >97% $[\alpha]_D^{25} = +59$ (c 0.29, DCM) Source of chirality: <i>cis</i>-aminochromanol Absolute configuration: 2S,4R,3aS,9bS

Donald R. Gauthier, Jr.,* Norihiro Ikemoto, Fred J. Fleitz, Ronald H. Szumigala, Jr., Dan Petrillo, Jinchu Liu, Robert A. Reamer, Joseph D. Armstrong, III, Peter M. Yehl, Naijun Wu and R. P. Volante	<i>Tetrahedron: Asymmetry 14 (2003) 3557</i>
 $C_{24}H_{27}NO_4$ (3aS,9bS)-1-[(2R)-2-Benzyl-3-[(2S)-oxiran-2-yl]propanoyl]-2,2-dimethyl-1,3a,4,9b-tetrahydro-2H-chromeno[4,3-d][1,3]oxazole	D.e. = 99% $[\alpha]_D^{25} = +54$ (c 0.35, DCM)

Donald R. Gauthier, Jr.,* Norihiro Ikemoto, Fred J. Fleitz,
 Ronald H. Szumigala, Jr., Dan Petrillo, Jinchu Liu, Robert A. Reamer,
 Joseph D. Armstrong, III, Peter M. Yehl, Naijun Wu and R. P. Volante

Tetrahedron: Asymmetry 14 (2003) 3557



$C_{36}H_{47}F_3N_4O_7$

tert-Butyl (3*S*)-4-((2*S*,4*R*)-4-benzyl-5-((3*aS*,9*bS*)-2,2-dimethyl-3*a*,9*b*-dihydro-2*H*-chromeno[4,3-*d*][1,3]oxazol-1(4*H*)-yl)-2-hydroxy-5-oxopentyl)-3-((2,2,2-trifluoroethyl)amino)carboxylate

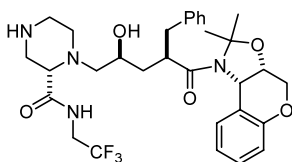
D.e. = 99%

$[\alpha]_D^{25} = +44$ (c 0.29, DCM)

Absolute configuration: 3*S*,2*S*,4*R*,3*aS*,9*bS*

Donald R. Gauthier, Jr.,* Norihiro Ikemoto, Fred J. Fleitz,
 Ronald H. Szumigala, Jr., Dan Petrillo, Jinchu Liu, Robert A. Reamer,
 Joseph D. Armstrong, III, Peter M. Yehl, Naijun Wu and R. P. Volante

Tetrahedron: Asymmetry 14 (2003) 3557



$C_{28}H_{35}F_3N_4O_5$

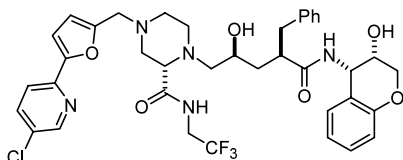
(2*S*)-1-((2*S*,4*R*)-4-benzyl-5-((3*S*,4*S*)-3-hydroxy-3,4-dihydro-2*H*-chromen-4-yl)amino)-2-hydroxy-5-oxopentyl)-*N*-(2,2,2-trifluoroethyl)-piperazine-2-carboxamide

D.e. = 99%

$[\alpha]_D^{25} = +38$ (c 0.39, DCM)

Donald R. Gauthier, Jr.,* Norihiro Ikemoto, Fred J. Fleitz,
 Ronald H. Szumigala, Jr., Dan Petrillo, Jinchu Liu, Robert A. Reamer,
 Joseph D. Armstrong, III, Peter M. Yehl, Naijun Wu and R. P. Volante

Tetrahedron: Asymmetry 14 (2003) 3557



$C_{38}H_{41}ClF_3N_5O_6$

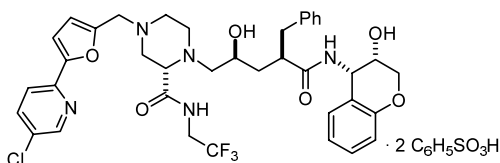
(2*S*)-1-((2*S*,4*R*)-4-benzyl-5-((3*S*,4*S*)-3-hydroxy-3,4-dihydro-2*H*-chromen-4-yl)amino)-2-hydroxy-5-oxopentyl)-4-([5-(5-chloropyridin-2-yl)-2-furyl]methyl)-*N*-(2,2,2-trifluoroethyl)piperazine-2-carboxamide

D.e. = 99%

$[\alpha]_D^{25} = +20.0$ (c 1, 0.01N HCl/methanol)

Donald R. Gauthier, Jr.,* Norihiro Ikemoto, Fred J. Fleitz,
 Ronald H. Szumigala, Jr., Dan Petrillo, Jinchu Liu, Robert A. Reamer,
 Joseph D. Armstrong, III, Peter M. Yehl, Naijun Wu and R. P. Volante

Tetrahedron: Asymmetry 14 (2003) 3557



$C_{50}H_{53}ClF_3N_5O_{12}S_2$

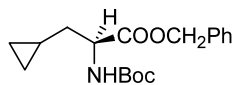
(2*S*)-1-((2*S*,4*R*)-4-benzyl-5-((3*S*,4*S*)-3-hydroxy-3,4-dihydro-2*H*-chromen-4-yl)amino)-2-hydroxy-5-oxopentyl)-4-([5-(5-chloropyridin-2-yl)-2-furyl]methyl)-*N*-(2,2,2-trifluoroethyl)piperazine-2-carboxamide bisbenzenesulfonic acid salt

D.e. = 99%

$[\alpha]_D^{25} = +15.9$ (c 1, methanol)

Neil W. Boaz,* Sheryl D. Debenham, Shannon E. Large and Mary K. Moore

Tetrahedron: Asymmetry 14 (2003) 3575



$C_{18}H_{25}NO_4$

2-*tert*-Butoxycarbonylamino-3-cyclopropylpropionic acid benzyl ester

Ee >99.5%

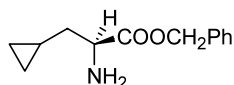
$[\alpha]_D^{23} = -22.5$ (c 1.04, CH_3OH)

Source of chirality: asymmetric synthesis

Absolute configuration: *S*

Neil W. Boaz,* Sheryl D. Debenham, Shannon E. Large and Mary K. Moore

Tetrahedron: Asymmetry 14 (2003) 3575



$C_{13}H_{17}NO_2$

2-Amino-3-cyclopropylpropionic acid benzyl ester

Ee >99.5%

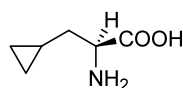
$[\alpha]_D^{23} = +5.6$ (c 1.00, CH_3OH)

Source of chirality: asymmetric synthesis

Absolute configuration: *S*

Neil W. Boaz,* Sheryl D. Debenham, Shannon E. Large and Mary K. Moore

Tetrahedron: Asymmetry 14 (2003) 3575



$C_6H_{11}NO_2$

2-Amino-3-cyclopropylpropionic acid

Ee >99.9%

$[\alpha]_D^{24} = -12.8$ (c 0.50, H_2O)

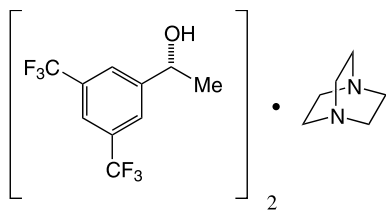
$[\alpha]_D^{24} = +14.5$ (c 0.51, $H_2O/2$ M NaOH)

Source of chirality: asymmetric synthesis

Absolute configuration: *S*

Karl B. Hansen,* Jennifer R. Chilenski, Richard Desmond, Paul N. Devine, Edward J. J. Grabowski, Richard Heid, Michele Kubryk, David J. Mathre and Richard Varsolona

Tetrahedron: Asymmetry 14 (2003) 3581



$C_{26}H_{28}F_{12}N_2O_2$

(*R*)-(Bis-2,5-trifluoromethylphenyl)ethan-1-ol 1,4-diazabicyclo[2.2.2]octane complex

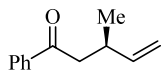
$[\alpha]_D^{20} = +18.4$ (c 0.125, MeOH)

Source of chirality: (1*S*,2*R*)-*cis*-aminoindanol asymmetric catalysis

Absolute configuration: *R*

P. Andrew Evans,* David K. Leahy and Laura M. Sliker

Tetrahedron: Asymmetry 14 (2003) 3613



$C_{12}H_{14}O$

(*R*)-3-Methyl-1-phenylpent-4-en-1-one

Ee = 97%

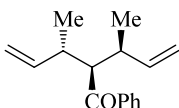
$[\alpha]_D^{24} = +1.3$ (c 1.35, $CHCl_3$)

Source of chirality: (*S*)-ethyl lactate

Absolute configuration: 3*R*

P. Andrew Evans,* David K. Leahy and Laura M. Sliker

Tetrahedron: Asymmetry 14 (2003) 3613



$C_{16}H_{20}O$

(3*S*,1'*S*)-3-Methyl-2-(1'-methylprop-2'-en-1'-yl)-1-phenylpent-4-en-1-one

De = 96%

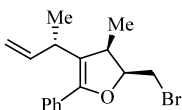
$[\alpha]_D^{25} = +38.8$ (c 1.16, $CHCl_3$)

Source of chirality: (*S*)-ethyl lactate

Absolute configuration: 3*S*,1'*S*

P. Andrew Evans,* David K. Leahy and Laura M. Sliker

Tetrahedron: Asymmetry 14 (2003) 3613



$C_{16}H_{19}BrO$

(2*S*,3*R*,1'*S*)-2-(Bromomethyl)-3-methyl-4-(1'-methylprop-2'-en-1'-yl)-5-phenyl-2,3-dihydrofuran

De ≥ 95%

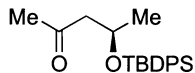
$[\alpha]_D^{25} = -43.0$ (c 1.01, $CHCl_3$)

Source of chirality: (*S*)-ethyl lactate

Absolute configuration: 2*S*,3*R*,1'*S*

Karen M. Miller, Carmela Molinaro and Timothy F. Jamison*

Tetrahedron: Asymmetry 14 (2003) 3619



$C_{21}H_{28}O_2Si$

(-)-(4*R*)-(tert-Butyldiphenylsiloxy)pentan-2-one

Ee > 99%

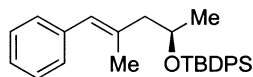
$[\alpha]_D^{20} = -5.0$ (c 0.40, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (4*R*)

Karen M. Miller, Carmela Molinaro and Timothy F. Jamison*

Tetrahedron: Asymmetry 14 (2003) 3619



$C_{28}H_{34}OSi$

(+)-[(1*E*,4*R*)-4-(*tert*-Butyldiphenylsiloxy)-2-methylpent-1-enyl]benzene

Ee >99%

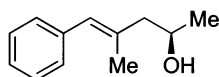
$[\alpha]_D^{20} = +36.9$ (*c* 2.1, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (4*R*)

Karen M. Miller, Carmela Molinaro and Timothy F. Jamison*

Tetrahedron: Asymmetry 14 (2003) 3619



$C_{12}H_{16}O$

(+)-[(4*E*,2*R*)-4-Methyl-5-phenylpent-4-en-2-ol]

Ee >99%

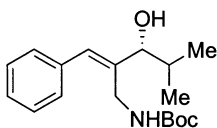
$[\alpha]_D^{20} = +1.9$ (*c* 1.9, EtOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (2*R*)

Karen M. Miller, Carmela Molinaro and Timothy F. Jamison*

Tetrahedron: Asymmetry 14 (2003) 3619



$C_{18}H_{27}NO_3$

(-)-(2*E*,3*R*)-2-Benzylidene-3-hydroxy-4-methylpentyl carbamic acid *tert*-butyl ester

Ee >98%

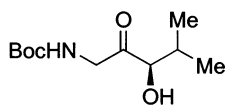
$[\alpha]_D^{20} = -3.0$ (*c* 1.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (3*R*)

Karen M. Miller, Carmela Molinaro and Timothy F. Jamison*

Tetrahedron: Asymmetry 14 (2003) 3619



$C_{11}H_{24}NO_4$

(-)-(3*R*)-(3-Hydroxy-4-methyl-2-oxo-pentyl)-carbamic acid *tert*-butyl ester

Ee = 96%

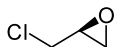
$[\alpha]_D^{20} = 112.5$ (*c* 1.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (3*R*)

David E. White and Eric N. Jacobsen*

Tetrahedron: Asymmetry 14 (2003) 3633



$\text{C}_3\text{H}_5\text{ClO}$
(*S*)-Epichlorohydrin

>99% ee (by GC analysis)

$[\alpha]_{\text{D}}^{25} = +32.9$ (*c* 0.998, MeOH)

Source of chirality: catalytic hydrolytic kinetic resolution

David E. White and Eric N. Jacobsen*

Tetrahedron: Asymmetry 14 (2003) 3633



$\text{C}_3\text{H}_6\text{O}$
(*R*)-Propylene oxide

>99% ee (by HPLC analysis of the 2-naphthalenethiol terminal addition derivative)

$[\alpha]_{\text{D}}^{25} = +13.8$ (neat)

Source of chirality: catalytic hydrolytic kinetic resolution

David E. White and Eric N. Jacobsen*

Tetrahedron: Asymmetry 14 (2003) 3633



$\text{C}_8\text{H}_8\text{O}$
(*R*)-Styrene oxide

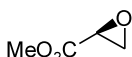
>99% ee (by HPLC analysis)

$[\alpha]_{\text{D}}^{25} = -23.7$ (*c* 1.01, CHCl_3)

Source of chirality: catalytic hydrolytic kinetic resolution

David E. White and Eric N. Jacobsen*

Tetrahedron: Asymmetry 14 (2003) 3633

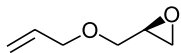


$\text{C}_4\text{H}_6\text{O}_3$
(*S*)-Methyl glycidate

>99% ee (by GC analysis)

$[\alpha]_{\text{D}}^{25} = -9.8$ (*c* 1.01, MeOH)

Source of chirality: catalytic hydrolytic kinetic resolution



(*S*)-Allyl glycidyl ether

>99% ee (by GC analysis)

$[\alpha]_{\text{D}}^{25} = +11.6$ (*c* 1.00, EtOH)

Source of chirality: catalytic hydrolytic kinetic resolution