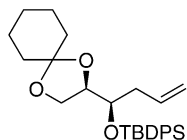


Stereochemistry abstracts

Avinash Salaskar, Anubha Sharma and Subrata Chattopadhyay\*

*Tetrahedron: Asymmetry 17 (2006) 325*



$C_{28}H_{38}O_3Si$

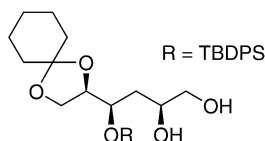
(4*R*,5*R*)-4-*tert*-Butyldiphenylsilyloxy-5,6-cyclohexylidenedioxyhex-1-ene

$[\alpha]_D^{25} = -2.7$  (*c* 1.04,  $CHCl_3$ )

Source of chirality: (*R*)-cyclohexylidenedioxyglycer-aldehyde

Avinash Salaskar, Anubha Sharma and Subrata Chattopadhyay\*

*Tetrahedron: Asymmetry 17 (2006) 325*



$C_{28}H_{40}O_5Si$

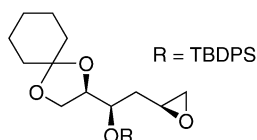
(2*S*,4*R*,5*R*)-4-*tert*-Butyldiphenylsilyloxy-5,6-cyclohexylidenedioxyhexane-1,2-diol

$[\alpha]_D^{25} = +11.92$  (*c* 0.94,  $CHCl_3$ )

Source of chirality: (*R*)-cyclohexylidenedioxyglycer-aldehyde

Avinash Salaskar, Anubha Sharma and Subrata Chattopadhyay\*

*Tetrahedron: Asymmetry 17 (2006) 325*



$C_{28}H_{38}O_4Si$

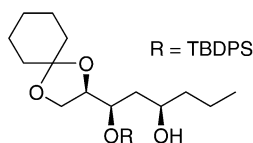
(2*S*,4*R*,5*R*)-4-*tert*-Butyldiphenylsilyloxy-5,6-cyclohexylidenedioxy-1,2-epoxyhexane

$[\alpha]_D^{25} = -13.63$  (*c* 1.14,  $CHCl_3$ )

Source of chirality: (*R*)-cyclohexylidenedioxyglycer-aldehyde

Avinash Salaskar, Anubha Sharma and Subrata Chattopadhyay\*

*Tetrahedron: Asymmetry 17 (2006) 325*



$C_{30}H_{44}O_4Si$

(4*R*,6*R*,7*R*)-6-*tert*-Butyldiphenylsilyloxy-7,8-cyclohexylidenedioxyoctan-4-ol

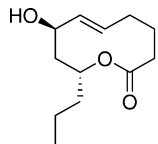
$[\alpha]_D^{25} = +6.47$  (*c* 0.42,  $CHCl_3$ )

Source of chirality: (*R*)-cyclohexylidenedioxyglycer-aldehyde



Avinash Salaskar, Anubha Sharma and Subrata Chattopadhyay\*

*Tetrahedron: Asymmetry 17 (2006) 325*



C<sub>13</sub>H<sub>22</sub>O<sub>2</sub>

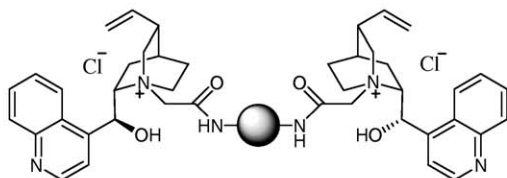
(7*R*,9*R*,5*E*)-7-Hydroxy-9-propylnonenolide

$[\alpha]_D^{25} = +21.87$  (*c* 0.88, EtOH)

Source of chirality: (*R*)-cyclohexylidene-glycer-aldehyde

Jian Lv, Xin Wang, Juyan Liu, Liping Zhang and Yongmei Wang\*

*Tetrahedron: Asymmetry 17 (2006) 330*

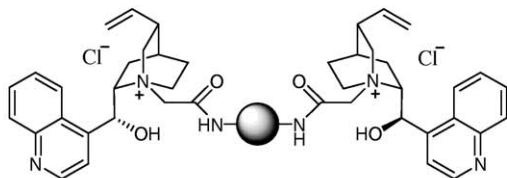


Diacetamido-PEG<sub>2000</sub> N-bound cinchoninium chloride

$[\alpha]_D^{20} = +45.3$  (*c* 0.4, CH<sub>2</sub>Cl<sub>2</sub>)

Jian Lv, Xin Wang, Juyan Liu, Liping Zhang and Yongmei Wang\*

*Tetrahedron: Asymmetry 17 (2006) 330*

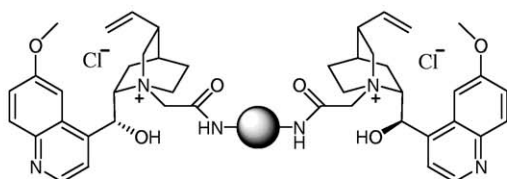


Diacetamido-PEG<sub>2000</sub> N-bound cinchonidinium chloride

$[\alpha]_D^{20} = -15.6$  (*c* 0.4, CH<sub>2</sub>Cl<sub>2</sub>)

Jian Lv, Xin Wang, Juyan Liu, Liping Zhang and Yongmei Wang\*

*Tetrahedron: Asymmetry 17 (2006) 330*

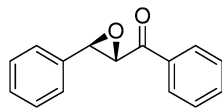


Diacetamido-PEG<sub>2000</sub> N-bound quininium chloride

$[\alpha]_D^{20} = -20.2$  (*c* 0.4, CH<sub>2</sub>Cl<sub>2</sub>)

Jian Lv, Xin Wang, Juyan Liu, Liping Zhang and Yongmei Wang\*

*Tetrahedron: Asymmetry 17 (2006) 330*



$C_{15}H_{12}O_2$

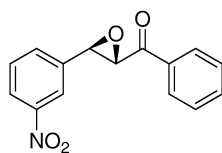
(2*R*,3*S*)-Epoxy-1,3-diphenylpropan-1-one

Ee = 86%

$[\alpha]_D^{20} = +177.4$  (*c* 1,  $CH_2Cl_2$ )

Jian Lv, Xin Wang, Juyan Liu, Liping Zhang and Yongmei Wang\*

*Tetrahedron: Asymmetry 17 (2006) 330*



$C_{15}H_{11}NO_4$

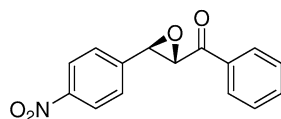
(2*R*,3*S*)-Epoxy-3-(3-nitrophenyl)-1-phenylpropan-1-one

Ee = 57%

$[\alpha]_D^{20} = +142.5$  (*c* 1,  $CH_2Cl_2$ )

Jian Lv, Xin Wang, Juyan Liu, Liping Zhang and Yongmei Wang\*

*Tetrahedron: Asymmetry 17 (2006) 330*



$C_{15}H_{11}NO_4$

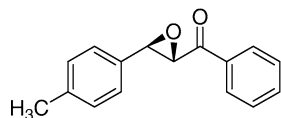
(2*R*,3*S*)-Epoxy-3-(4-nitrophenyl)-1-phenylpropan-1-one

Ee = 57%

$[\alpha]_D^{20} = +140.6$  (*c* 1,  $CH_2Cl_2$ )

Jian Lv, Xin Wang, Juyan Liu, Liping Zhang and Yongmei Wang\*

*Tetrahedron: Asymmetry 17 (2006) 330*



$C_{16}H_{14}NO_2$

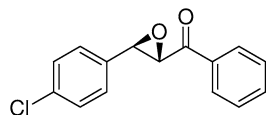
(2*R*,3*S*)-Epoxy-3-(4-methylphenyl)-1-phenylpropan-1-one

Ee = 49%

$[\alpha]_D^{20} = +116.7$  (*c* 1,  $CH_2Cl_2$ )

Jian Lv, Xin Wang, Juyan Liu, Liping Zhang and Yongmei Wang\*

*Tetrahedron: Asymmetry 17 (2006) 330*



$C_{15}H_{11}ClO_2$

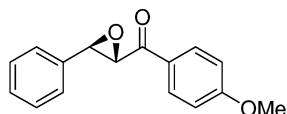
(2*R*,3*S*)-Epoxy-3-(4-chlorophenyl)-1-phenylpropan-1-one

Ee = 33%

$[\alpha]_D^{20} = +66.7$  (c 1,  $CH_2Cl_2$ )

Jian Lv, Xin Wang, Juyan Liu, Liping Zhang and Yongmei Wang\*

*Tetrahedron: Asymmetry 17 (2006) 330*



$C_{16}H_{14}O_3$

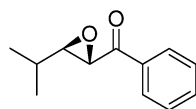
(2*R*,3*S*)-Epoxy-1-(4-methoxyphenyl)-3-phenylpropan-1-one

Ee = 35%

$[\alpha]_D^{20} = +73.7$  (c 1,  $CH_2Cl_2$ )

Jian Lv, Xin Wang, Juyan Liu, Liping Zhang and Yongmei Wang\*

*Tetrahedron: Asymmetry 17 (2006) 330*



$C_{12}H_{14}O_2$

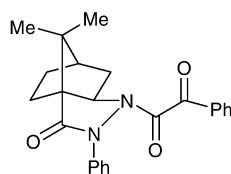
(2*R*,3*S*)-Epoxy-4-methylbutanophenone

Ee = 19%

$[\alpha]_D^{20} = +5.0$  (c 1,  $CH_2Cl_2$ )

Neelesh A. Kulkarni, Shy-Guey Wang, Li-Chen Lee, Huei Ru Tsai,  
Uppala Venkatesham and Kwunmin Chen\*

*Tetrahedron: Asymmetry 17 (2006) 336*



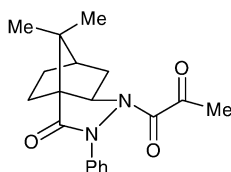
$C_{24}H_{24}N_2O_3$

1-(10,10-Dimethyl-2-oxo-3-phenyl-3,4-diaza-tricyclo[5.2.1.0<sup>1,5</sup>]dec-4-yl)-2-phenyl-ethane-1,2-dione

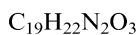
$[\alpha]_D^{27} = -144.8$  (c 1,  $CHCl_3$ )

Neelesh A. Kulkarni, Shy-Guey Wang, Li-Chen Lee, Huei Ru Tsai,  
Uppala Venkatesham and Kwunmin Chen\*

*Tetrahedron: Asymmetry 17 (2006) 336*



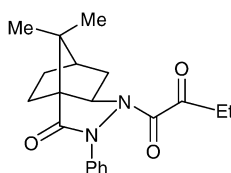
$$[\alpha]_D^{27} = -52.3 (c 1, \text{CHCl}_3)$$



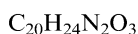
1-(10,10-Dimethyl-2-oxo-3-phenyl-3,4-diaza-tricyclo[5.2.1.0<sup>1,5</sup>]dec-4-yl)-propane-1,2-dione

Neelesh A. Kulkarni, Shy-Guey Wang, Li-Chen Lee, Huei Ru Tsai,  
Uppala Venkatesham and Kwunmin Chen\*

*Tetrahedron: Asymmetry 17 (2006) 336*



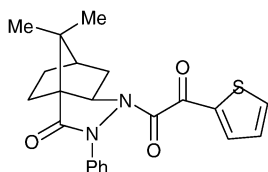
$$[\alpha]_D^{27} = -55.7 (c 1, \text{CHCl}_3)$$



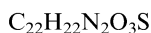
1-(10,10-Dimethyl-2-oxo-3-phenyl-3,4-diaza-tricyclo[5.2.1.0<sup>1,5</sup>]dec-4-yl)-butane-1,2-dione

Neelesh A. Kulkarni, Shy-Guey Wang, Li-Chen Lee, Huei Ru Tsai,  
Uppala Venkatesham and Kwunmin Chen\*

*Tetrahedron: Asymmetry 17 (2006) 336*



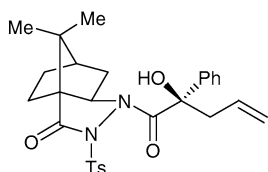
$$[\alpha]_D^{27} = -268.9 (c 1, \text{CHCl}_3)$$



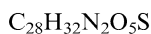
1-(10,10-Dimethyl-2-oxo-3-phenyl-3,4-diaza-tricyclo[5.2.1.0<sup>1,5</sup>]dec-4-yl)-2-thiophen-2-yl-ethane-1,2-dione

Neelesh A. Kulkarni, Shy-Guey Wang, Li-Chen Lee, Huei Ru Tsai,  
Uppala Venkatesham and Kwunmin Chen\*

*Tetrahedron: Asymmetry 17 (2006) 336*



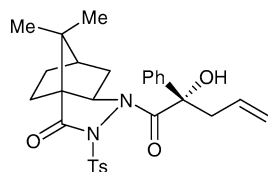
$$[\alpha]_D^{27} = +142.0 (c 1, \text{CHCl}_3)$$



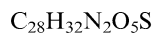
4-(2R)-(Hydroxy-2-phenyl-pent-4-enoyl)-10,10-dimethyl-3-(toluene-4-sulfonyl)-3,4-diaza-tricyclo[5.2.1.0<sup>1,5</sup>]decan-2-one

Neelesh A. Kulkarni, Shy-Guey Wang, Li-Chen Lee, Huei Ru Tsai,  
Uppala Venkatesham and Kwunmin Chen\*

*Tetrahedron: Asymmetry 17 (2006) 336*



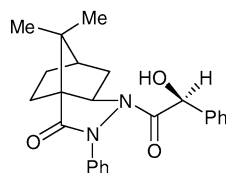
$$[\alpha]_D^{27} = -71.3 (c 1, \text{CHCl}_3)$$



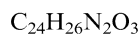
4-(2*S*)-(Hydroxy-2-phenyl-pent-4-enoyl)-10,10-dimethyl-3-(toluene-4-sulfonyl)-3,4-diaza-tricyclo[5.2.1.0<sup>1,5</sup>]decan-2-one

Neelesh A. Kulkarni, Shy-Guey Wang, Li-Chen Lee, Huei Ru Tsai,  
Uppala Venkatesham and Kwunmin Chen\*

*Tetrahedron: Asymmetry 17 (2006) 336*



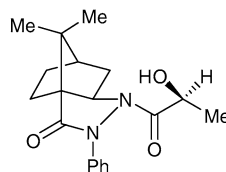
$$[\alpha]_D^{22} = -11.5 (c 1, \text{CHCl}_3)$$



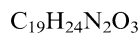
4-(2*S*)-(Hydroxy-2-phenyl-acetyl)-10,10-dimethyl-3-phenyl-3,4-diaza-tricyclo[5.2.1.0<sup>1,5</sup>]decan-2-one

Neelesh A. Kulkarni, Shy-Guey Wang, Li-Chen Lee, Huei Ru Tsai,  
Uppala Venkatesham and Kwunmin Chen\*

*Tetrahedron: Asymmetry 17 (2006) 336*



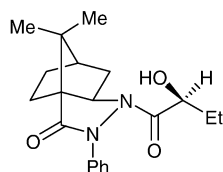
$$[\alpha]_D^{22} = -67.1 (c 1, \text{CHCl}_3)$$



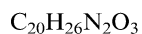
4-(2*S*)-(Hydroxy-propionyl)-10,10-dimethyl-3-phenyl-3,4-diaza-tricyclo[5.2.1.0<sup>1,5</sup>]decan-2-one

Neelesh A. Kulkarni, Shy-Guey Wang, Li-Chen Lee, Huei Ru Tsai,  
Uppala Venkatesham and Kwunmin Chen\*

*Tetrahedron: Asymmetry 17 (2006) 336*



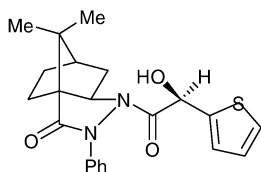
$$[\alpha]_D^{22} = -27.1 (c 1, \text{CHCl}_3)$$



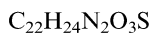
4-(2*S*)-(Hydroxy-butyl)-10,10-dimethyl-3-phenyl-3,4-diaza-tricyclo[5.2.1.0<sup>1,5</sup>]decan-2-one

Neelesh A. Kulkarni, Shy-Guey Wang, Li-Chen Lee, Huei Ru Tsai,  
Uppala Venkatesham and Kwunmin Chen\*

*Tetrahedron: Asymmetry 17 (2006) 336*



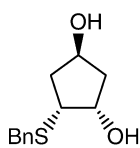
$$[\alpha]_D^{22} = -10.2 \text{ (} c \text{ 1, CHCl}_3\text{)}$$



4-(2*R*)-(Hydroxy-2-thiophen-2-yl-acetyl)-10,10-dimethyl-3-phenyl-3,4-diaza-tricyclo[5.2.1.0<sup>1,5</sup>]decan-2-one

Jamie F. Bickley, Paul Evans, Alastair Meek, Ben S. Morgan and  
Stanley M. Roberts\*

*Tetrahedron: Asymmetry 17 (2006) 355*



(1*S*,3*S*,4*R*)-4-(Benzylthio)cyclopentane-1,3-diol

Ee >98% (HPLC)

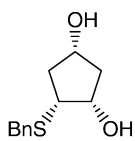
$$[\alpha]_D = +57.2 \text{ (} c \text{ 0.66, CHCl}_3\text{)}$$

Source of chirality: enzymatic kinetic resolution

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

Jamie F. Bickley, Paul Evans, Alastair Meek, Ben S. Morgan and  
Stanley M. Roberts\*

*Tetrahedron: Asymmetry 17 (2006) 355*



(1*R*,3*S*,4*R*)-4-(Benzylthio)cyclopentane-1,3-diol

Ee >96% (HPLC)

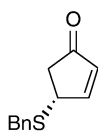
$$[\alpha]_D = +97.1 \text{ (} c \text{ 1.05, CH}_2\text{Cl}_2\text{)}$$

Source of chirality: enzymatic kinetic resolution

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

Jamie F. Bickley, Paul Evans, Alastair Meek, Ben S. Morgan and  
Stanley M. Roberts\*

*Tetrahedron: Asymmetry 17 (2006) 355*



(*R*)-4-Benzylsulfanyl-cyclopent-2-enone

Ee >99% (HPLC)

$$[\alpha]_D = +178 \text{ (} c \text{ 1.0, CHCl}_3\text{)}$$

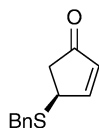
Source of chirality: enzymatic kinetic resolution

Absolute configuration: 4(*R*)



Jamie F. Bickley, Paul Evans, Alastair Meek, Ben S. Morgan and Stanley M. Roberts\*

*Tetrahedron: Asymmetry 17 (2006) 355*



$C_{12}H_{12}OS$

(*S*)-4-Benzylsulfanyl-cyclopent-2-enone

Ee >99% (HPLC)

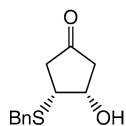
$[\alpha]_D = -178$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: enzymatic kinetic resolution

Absolute configuration: 4(*S*)

Jamie F. Bickley, Paul Evans, Alastair Meek, Ben S. Morgan and Stanley M. Roberts\*

*Tetrahedron: Asymmetry 17 (2006) 355*



$C_{12}H_{14}O_2S$

(*3R,4S*)-3-Benzylsulfanyl-4-hydroxy-cyclopentanone

Ee >99% (HPLC)

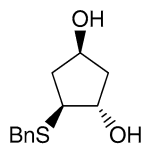
$[\alpha]_D = +60$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: enzymatic kinetic resolution

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

Jamie F. Bickley, Paul Evans, Alastair Meek, Ben S. Morgan and Stanley M. Roberts\*

*Tetrahedron: Asymmetry 17 (2006) 355*



$C_{12}H_{16}O_2S$

(*1S,3S,4S*)-4-(Benzylthio)cyclopentane-1,3-diol

Ee >98% (HPLC)

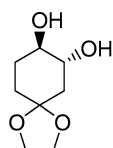
$[\alpha]_D = +40.9$  (*c* 0.44,  $CHCl_3$ )

Source of chirality: enzymatic kinetic resolution

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

Jamie F. Bickley, Paul Evans, Alastair Meek, Ben S. Morgan and Stanley M. Roberts\*

*Tetrahedron: Asymmetry 17 (2006) 355*



$C_8H_{14}O_4$

*trans*-1,4-Dioxaspiro[4.5]decane-7,8-diol

Ee = 94% (Chiral GC)

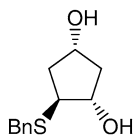
$[\alpha]_D = 0$  (*c* 0,  $CH_2Cl_2$ )

Source of chirality: proline organocatalysis

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

Jamie F. Bickley, Paul Evans, Alastair Meek, Ben S. Morgan and Stanley M. Roberts\*

*Tetrahedron: Asymmetry 17 (2006) 355*



(1*R*,3*S*,4*S*)-4-(Benzylthio)cyclopentane-1,3-diol

Ee >98% (HPLC)

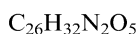
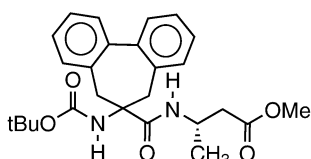
$[\alpha]_D = -39.3$  (*c* 0.89,  $CHCl_3$ )

Source of chirality: enzymatic kinetic resolution

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

Laurence Dutot, Anne Gaucher, Karen Wright, Michel Wakselman, Jean-Paul Mazaleyrat,\* Simona Oancea, Cristina Peggion, Fernando Formaggio and Claudio Toniolo\*

*Tetrahedron: Asymmetry 17 (2006) 363*



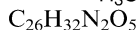
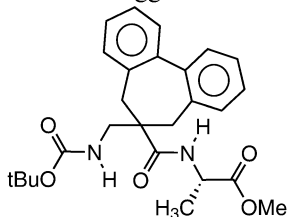
Boc-Bip-L-β<sup>3</sup>-HAla-OMe

$[\alpha]_{436}^{25} = -54.7$  (*c* 0.3,  $CH_2Cl_2$ )

Absolute configuration: *S* (assigned by comparison)

Laurence Dutot, Anne Gaucher, Karen Wright, Michel Wakselman, Jean-Paul Mazaleyrat,\* Simona Oancea, Cristina Peggion, Fernando Formaggio and Claudio Toniolo\*

*Tetrahedron: Asymmetry 17 (2006) 363*



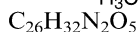
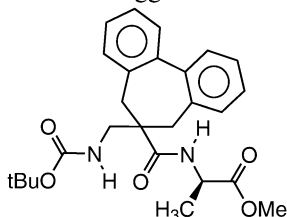
Boc-β<sup>2,2</sup>-HBip-L-Ala-OMe

$[\alpha]_{436}^{25} = -41.1$  (*c* 0.1,  $CH_2Cl_2$ )

Absolute configuration: *S* (assigned by comparison)

Laurence Dutot, Anne Gaucher, Karen Wright, Michel Wakselman, Jean-Paul Mazaleyrat,\* Simona Oancea, Cristina Peggion, Fernando Formaggio and Claudio Toniolo\*

*Tetrahedron: Asymmetry 17 (2006) 363*



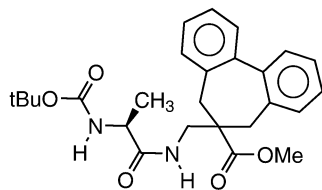
Boc-β<sup>2,2</sup>-HBip-D-Ala-OMe

$[\alpha]_{436}^{25} = +27.4$  (*c* 0.1,  $CH_2Cl_2$ )

Absolute configuration: *R* (assigned by comparison)

Laurence Dutot, Anne Gaucher, Karen Wright, Michel Wakselman,  
Jean-Paul Mazaleyrat,\* Simona Oancea, Cristina Peggion,  
Fernando Formaggio and Claudio Toniolo\*

*Tetrahedron: Asymmetry 17 (2006) 363*



$C_{26}H_{32}N_2O_5$

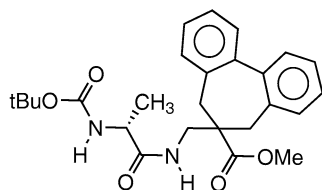
Boc-L-Ala- $\beta^{2,2}$ -HBip-OMe

$[\alpha]_{436}^{25} = -47.6$  (*c* 0.1, CH<sub>2</sub>Cl<sub>2</sub>)

Absolute configuration: *S* (assigned by comparison)

Laurence Dutot, Anne Gaucher, Karen Wright, Michel Wakselman,  
Jean-Paul Mazaleyrat,\* Simona Oancea, Cristina Peggion,  
Fernando Formaggio and Claudio Toniolo\*

*Tetrahedron: Asymmetry 17 (2006) 363*



$C_{26}H_{32}N_2O_5$

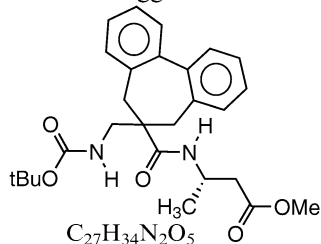
Boc-D-Ala- $\beta^{2,2}$ -HBip-OMe

$[\alpha]_{436}^{25} = +38.6$  (*c* 0.1, CH<sub>2</sub>Cl<sub>2</sub>)

Absolute configuration: *R* (assigned by comparison)

Laurence Dutot, Anne Gaucher, Karen Wright, Michel Wakselman,  
Jean-Paul Mazaleyrat,\* Simona Oancea, Cristina Peggion,  
Fernando Formaggio and Claudio Toniolo\*

*Tetrahedron: Asymmetry 17 (2006) 363*



$C_{27}H_{34}N_2O_5$

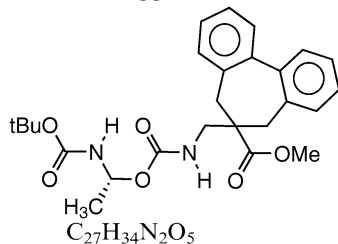
Boc- $\beta^{2,2}$ -HBip-L- $\beta^3$ -HAla-OMe

$[\alpha]_{436}^{25} = -16.5$  (*c* 0.1, CH<sub>2</sub>Cl<sub>2</sub>)

Absolute configuration: *S* (assigned by comparison)

Laurence Dutot, Anne Gaucher, Karen Wright, Michel Wakselman,  
Jean-Paul Mazaleyrat,\* Simona Oancea, Cristina Peggion,  
Fernando Formaggio and Claudio Toniolo\*

*Tetrahedron: Asymmetry 17 (2006) 363*



$C_{27}H_{34}N_2O_5$

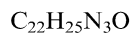
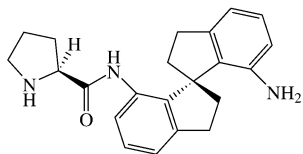
Boc-L- $\beta^3$ -HAla- $\beta^{2,2}$ -HBip-OMe

$[\alpha]_{436}^{25} = -23.1$  (*c* 0.1, CH<sub>2</sub>Cl<sub>2</sub>)

Absolute configuration: *S* (assigned by comparison)

Man Jiang, Shou-Fei Zhu, Yun Yang, Liu-Zhu Gong,  
Xiang-Ge Zhou\* and Qi-Lin Zhou\*

*Tetrahedron: Asymmetry 17 (2006) 384*



(*S,S*)-1,1'-Spirobiindane-7-amino-7'-(pyrrolidine-2-carboxylic acid amide)

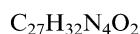
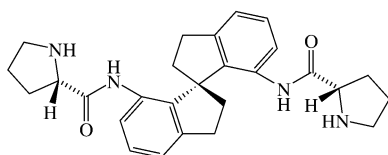
$$[\alpha]_D^{25} = -123.7 (c 0.27, CH_2Cl_2)$$

Source of chirality: natural L-proline and resolution

Absolute configuration: *S,S*

Man Jiang, Shou-Fei Zhu, Yun Yang, Liu-Zhu Gong,  
Xiang-Ge Zhou\* and Qi-Lin Zhou\*

*Tetrahedron: Asymmetry 17 (2006) 384*



(*S,S,S*)-1,1'-Spirobiindane-7,7'-bis(pyrrolidine-2-carboxylic acid amide)

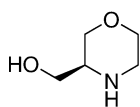
$$[\alpha]_D^{25} = -92.2 (c 0.27, CH_2Cl_2)$$

Source of chirality: natural L-proline and resolution

Absolute configuration: *S,S,S*

Rajesh Dave and N. André Sasaki\*

*Tetrahedron: Asymmetry 17 (2006) 388*



(*S*)-3-(Hydroxymethyl)morpholine

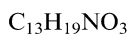
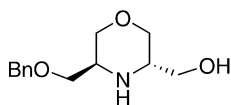
$$[\alpha]_D^{27} = -17.2 (c 1.4, 1 M HCl)$$

Source of chirality: L-serine

Absolute configuration: (*S*)

Rajesh Dave and N. André Sasaki\*

*Tetrahedron: Asymmetry 17 (2006) 388*



(*3S,5S*)-3-(Benzyloxymethyl)-5-(hydroxymethyl)morpholine

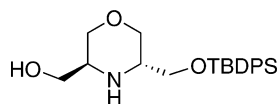
$$[\alpha]_D^{26} = +3.7 (c 1.0, MeOH)$$

Source of chirality: D-serine and (*S*)-2,3-*O*-isopropylidene-glycerol

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

Rajesh Dave and N. André Sasaki\*

*Tetrahedron: Asymmetry 17 (2006) 388*



$C_{22}H_{31}NO_3Si$

(3*R*,5*S*)-3-(*tert*-Butyldiphenylsilyloxymethyl)-5-(hydroxymethyl)morpholine

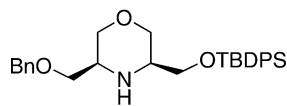
$[\alpha]_D^{24} = -11.5$  (*c* 1.1, MeOH)

Source of chirality: D-serine and (*S*)-2,3-*O*-isopropylidenglycerol

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

Rajesh Dave and N. André Sasaki\*

*Tetrahedron: Asymmetry 17 (2006) 388*



$C_{29}H_{37}NO_3Si$

(3*S*,5*S*)-3-(Benzyloxymethyl)-5-(*tert*-butyldiphenylsilyloxymethyl)morpholine

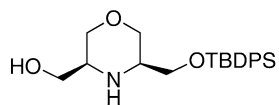
$[\alpha]_D^{24} = +2.2$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: D-serine and (*R*)-2,3-*O*-isopropylidenglycerol

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

Rajesh Dave and N. André Sasaki\*

*Tetrahedron: Asymmetry 17 (2006) 388*



$C_{22}H_{31}NO_3$

(3*S*,5*S*)-3-(*tert*-Butyldiphenylsilyloxymethyl)-5-(hydroxymethyl)morpholine

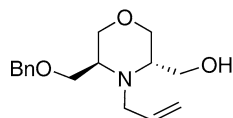
$[\alpha]_D^{26} = -0.6$  (*c* 1.4, MeOH)

Source of chirality: D-serine and (*R*)-2,3-*O*-isopropylidenglycerol

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

Rajesh Dave and N. André Sasaki\*

*Tetrahedron: Asymmetry 17 (2006) 388*



$C_{16}H_{23}NO_3$

(3*S*,5*S*)-*N*-Allyl-3-(benzyloxymethyl)-5-(hydroxymethyl)morpholine

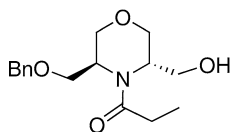
$[\alpha]_D^{26} = +47$  (*c* 1.3,  $CHCl_3$ )

Source of chirality: D-serine and (*S*)-2,3-*O*-isopropylidenglycerol

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

Rajesh Dave and N. André Sasaki\*

*Tetrahedron: Asymmetry 17 (2006) 388*



$C_{16}H_{23}NO_4$

(3*S*,5*S*)-*N*-Propionyl-3-(benzyloxymethyl)-5-(hydroxymethyl)morpholine

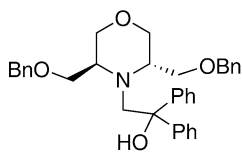
$$[\alpha]_D^{24} = +22.2 (c 1.6, CHCl_3)$$

Source of chirality: *D*-serine and (*S*)-2,3-*O*-isopropylidene-glycerol

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

Rajesh Dave and N. André Sasaki\*

*Tetrahedron: Asymmetry 17 (2006) 388*



$C_{34}H_{37}NO_4$

(3*S*,5*S*)-*N*-(2,2-Diphenyl-2-hydroxyethyl)-3,5-bis(benzyloxymethyl)morpholine

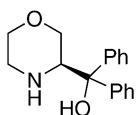
$$[\alpha]_D^{23} = +35.2 (c 1.0, CHCl_3)$$

Source of chirality: *D*-serine and (*R*)-2,3-*O*-isopropylidene-glycerol

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

Rajesh Dave and N. André Sasaki\*

*Tetrahedron: Asymmetry 17 (2006) 388*



$C_{17}H_{19}NO_2$

(*S*)-3-(Hydroxydiphenylmethyl)morpholine

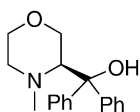
$$[\alpha]_D^{25} = -105.5 (c 1.7, CHCl_3)$$

Source of chirality: *L*-serine

Absolute configuration: (*S*)

Rajesh Dave and N. André Sasaki\*

*Tetrahedron: Asymmetry 17 (2006) 388*



$C_{18}H_{21}NO_2$

(*S*)-*N*-Methyl-3-(hydroxydiphenylmethyl)morpholine

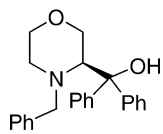
$$[\alpha]_D^{29} = -157.2 (c 0.9, CHCl_3)$$

Source of chirality: *L*-serine

Absolute configuration: (*S*)

Rajesh Dave and N. André Sasaki\*

*Tetrahedron: Asymmetry 17 (2006) 388*



$C_{24}H_{25}NO_2$

(*S*)-*N*-Benzyl-3-(hydroxydiphenylmethyl)morpholine

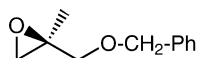
$[\alpha]_D^{28} = -81.4$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: L-serine

Absolute configuration: (*S*)

Yolanda Simeó and Kurt Faber\*

*Tetrahedron: Asymmetry 17 (2006) 402*



$C_{11}H_{14}O_2$

2-Methylglycidyl benzyl ether

Ee >97%

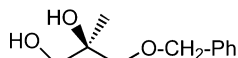
$[\alpha]_D^{20} = +9.2$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: chemo-enzymatic deracemization

Absolute configuration: (*S*)

Yolanda Simeó and Kurt Faber\*

*Tetrahedron: Asymmetry 17 (2006) 402*



$C_{11}H_{16}O_3$

2-Benzyloxymethylpropan-1,2-diol

Ee >97%

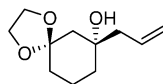
$[\alpha]_D^{20} = -6.6$  (*c* 1.33,  $CH_2Cl_2$ )

Source of chirality: chemo-enzymatic deracemization

Absolute configuration: (*R*)

Viveca Thornqvist, Sophie Manner and Torbjörn Frejd\*

*Tetrahedron: Asymmetry 17 (2006) 410*



$C_{11}H_{18}O_3$

(+)-(7*S*)-7-Allyl-1,4-dioxaspiro[4.5]decane-7-ol

Ee = 78%

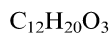
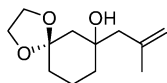
$[\alpha]_D^{22} = +19.8$  (*c* 1.66, EtOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (*7S*)

Viveca Thornqvist, Sophie Manner and Torbjörn Frejd\*

*Tetrahedron: Asymmetry 17 (2006) 410*



(-)-7-(2-Methyl-allyl)-1,4-dioxaspiro[4.5]decane-7-ol

Ee = 71%

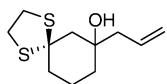
$[\alpha]_D^{22} = -13.9$  (c 0.90,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: not determined

Viveca Thornqvist, Sophie Manner and Torbjörn Frejd\*

*Tetrahedron: Asymmetry 17 (2006) 410*



(-)-7-Allyl-1,4-dithiaspiro[4.5]decane-7-ol

Ee = 54%

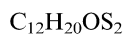
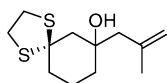
$[\alpha]_D^{22} = -10.8$  (c 1.30,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: not determined

Viveca Thornqvist, Sophie Manner and Torbjörn Frejd\*

*Tetrahedron: Asymmetry 17 (2006) 410*



(-)-7-(2-Methyl-allyl)-1,4-dithiaspiro[4.5]decane-7-ol

Ee = 23%

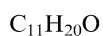
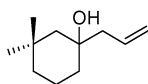
$[\alpha]_D^{22} = -2.7$  (c 1.08,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: not determined

Viveca Thornqvist, Sophie Manner and Torbjörn Frejd\*

*Tetrahedron: Asymmetry 17 (2006) 410*



(-)-1-Allyl-3,3-dimethyl-cyclohexanol

Ee = 37%

$[\alpha]_D^{22} = -0.3$  (c 1.13,  $CHCl_3$ )

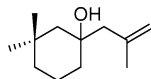
Source of chirality: asymmetric synthesis

Absolute configuration: not determined



Viveca Thornqvist, Sophie Manner and Torbjörn Frejd\*

*Tetrahedron: Asymmetry 17 (2006) 410*



C<sub>12</sub>H<sub>22</sub>O

(+)-3,3-Dimethyl-1-(2-methyl-allyl)-cyclohexanol

Ee = 38%

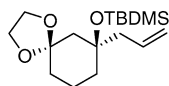
[α]<sub>D</sub><sup>22</sup> = +1.4 (c 1.32, CHCl<sub>3</sub>)

Source of chirality: asymmetric synthesis

Absolute configuration: not determined

Viveca Thornqvist, Sophie Manner and Torbjörn Frejd\*

*Tetrahedron: Asymmetry 17 (2006) 410*



C<sub>17</sub>H<sub>32</sub>O<sub>3</sub>Si

(-)-(7R)-(7-Allyl-1,4-dioxaspiro[4.5]dec-7-yloxy)-tert-butyl-dimethylsilane

Ee = 79%

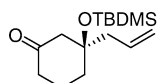
[α]<sub>D</sub><sup>22</sup> = -0.5 (c 1.11, EtOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (7R)

Viveca Thornqvist, Sophie Manner and Torbjörn Frejd\*

*Tetrahedron: Asymmetry 17 (2006) 410*



C<sub>15</sub>H<sub>28</sub>O<sub>2</sub>Si

(+)-(3R)-3-Allyl-3-(tert-butyl-dimethyl-silyloxy)-cyclohexanone

Ee = 79%

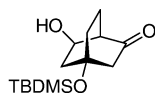
[α]<sub>D</sub><sup>22</sup> = +7.6 (c 1.30, EtOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (3R)

Viveca Thornqvist, Sophie Manner and Torbjörn Frejd\*

*Tetrahedron: Asymmetry 17 (2006) 410*



C<sub>14</sub>H<sub>26</sub>O<sub>3</sub>Si

(+)-(1R,4R,6S)-exo-4-(tert-Butyl-dimethyl-silyloxy)-6-hydroxy-bicyclo[2.2.2]octan-2-one

Ee = 79%

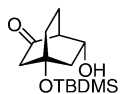
[α]<sub>D</sub><sup>22</sup> = +12.6 (c 1.09, EtOH)

Source of chirality: asymmetric synthesis

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

Viveca Thornqvist, Sophie Manner and Torbjörn Frejd\*

*Tetrahedron: Asymmetry 17 (2006) 410*



$C_{14}H_{26}O_3Si$

(+)-(1*S*,4*S*,6*R*)-endo-4-(*tert*-Butyl-dimethyl-silyloxy)-6-hydroxy-bicyclo[2.2.2]octan-2-one

Ee = >98%

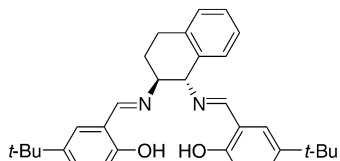
$[\alpha]_D^{22} = +10.1$  (*c* 1.01, EtOH)

Source of chirality: asymmetric synthesis

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

Yong-Hwan Cho, Aude Fayol and Mark Lautens\*

*Tetrahedron: Asymmetry 17 (2006) 416*



$C_{40}H_{54}N_2O_2$

(*S,S*)-*N,N'*-Bis(3,5-di-*tert*-butylsalicylidene)-1,2-diamino-1,2,3,4-tetrahydro-tetramethylnaphthalene

Ee >99%

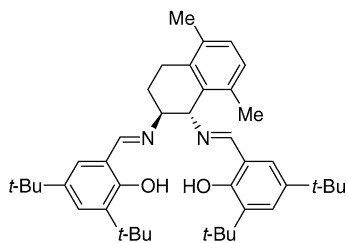
$[\alpha]_D^{25} = +265.8$  (*c* 1.00,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: *S,S*

Yong-Hwan Cho, Aude Fayol and Mark Lautens\*

*Tetrahedron: Asymmetry 17 (2006) 416*



$C_{42}H_{58}N_2O_2$

(*S,S*)-*N,N'*-Bis(3,5-di-*tert*-butylsalicylidene)-1,2-diamino-1,2,3,4-tetrahydro-5,8-dimethyl-tetramethylnaphthalene

Ee >99%

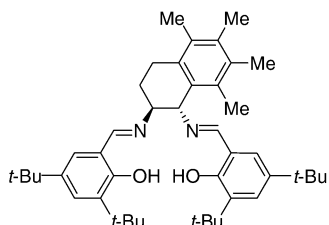
$[\alpha]_D^{25} = +219.8$  (*c* 1.00,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: *S,S*

Yong-Hwan Cho, Aude Fayol and Mark Lautens\*

*Tetrahedron: Asymmetry 17 (2006) 416*



$C_{44}H_{62}N_2O_2$

(*S,S*)-*N,N'*-Bis(3,5-di-*tert*-butylsalicylidene)-1,2-diamino-1,2,3,4-tetrahydro-5,6,7,8-tetramethyl-tetramethylnaphthalene

Ee >99%

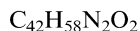
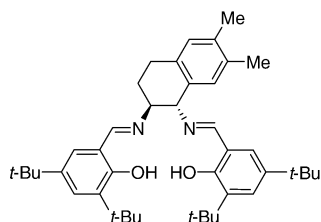
$[\alpha]_D^{25} = +185.0$  (*c* 1.00,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: *S,S*

Yong-Hwan Cho, Aude Fayol and Mark Lautens\*

*Tetrahedron: Asymmetry 17 (2006) 416*



(*S,S*)-*N,N'*-Bis(3,5-di-*tert*-butylsalicylidene)-1,2-diamino-1,2,3,4-tetrahydro-6,7-dimethyl-tetramethylnaphthalene

Ee >99%

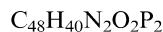
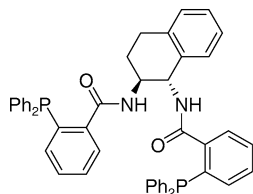
$[\alpha]_D^{25} = +220.2$  (*c* 1.00,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: *S,S*

Yong-Hwan Cho, Aude Fayol and Mark Lautens\*

*Tetrahedron: Asymmetry 17 (2006) 416*



(-)-1*N,2N*-Bis[2'-(diphenylphosphino)benzoyl]-(1*S,2S*)-diamino-1,2,3,4-tetrahydronaphthalene

Ee >99%

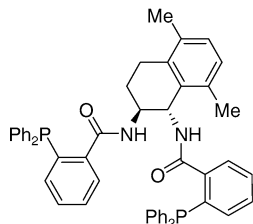
$[\alpha]_D^{25} = -29.8$  (*c* 1.00,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: 1*S,2S*

Yong-Hwan Cho, Aude Fayol and Mark Lautens\*

*Tetrahedron: Asymmetry 17 (2006) 416*



(+)-1*N,2N*-Bis[2'-(diphenylphosphino)benzoyl]-(1*S,2S*)-diamino-5,8-dimethyl-1,2,3,4-tetrahydronaphthalene

Ee >99%

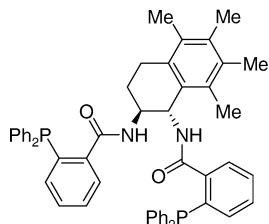
$[\alpha]_D^{25} = +94.0$  (*c* 1.00,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: 1*S,2S*

Yong-Hwan Cho, Aude Fayol and Mark Lautens\*

*Tetrahedron: Asymmetry 17 (2006) 416*



(+)-1*N,2N*-Bis[2'-(diphenylphosphino)benzoyl]-(1*S,2S*)-diamino-1,2,3,4-tetrahydro-5,6,7,8-tetramethylnaphthalene

Ee >99%

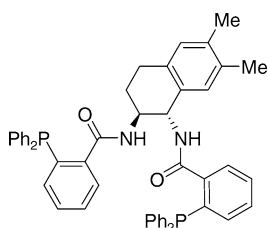
$[\alpha]_D^{25} = +58.4$  (*c* 1.00,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: 1*S,2S*

Yong-Hwan Cho, Aude Fayol and Mark Lautens\*

*Tetrahedron: Asymmetry 17 (2006) 416*



(-)-1*N*,2*N*-Bis[2'-(diphenylphosphino)benzoyl]-(1*S*,2*S*)-diamino-6,7-dimethyl-1,2,3,4-tetrahydronaphthalene

Ee >99%

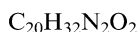
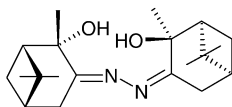
$[\alpha]_D^{25} = -28.9$  (*c* 1.00, CHCl<sub>3</sub>)

Source of chirality: asymmetric synthesis

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

Stanisław W. Markowicz,\* Marek Figlus, Michał Lejkowski,  
Janina Karolak-Wojciechowska,\* Agnieszka Dzierżawska-Majewska  
and Francis Verpoort

*Tetrahedron: Asymmetry 17 (2006) 434*



Di{(1*S*,1'*S*,2*S*,2'*S*,5*S*,5'*S*)-2-hydroxy-2,6,6-trimethyl-bicyclo[3.1.1]-hept-3-ene}-diazane

Ee >99%

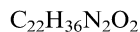
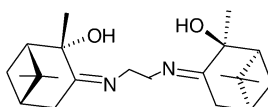
$[\alpha]_D^{20} = -24.6$  (*c* 1, CHCl<sub>3</sub>)

Source of chirality: (+)- $\alpha$ -pinene

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

Stanisław W. Markowicz,\* Marek Figlus, Michał Lejkowski,  
Janina Karolak-Wojciechowska,\* Agnieszka Dzierżawska-Majewska  
and Francis Verpoort

*Tetrahedron: Asymmetry 17 (2006) 434*



Di{(1*S*,1'*S*,2*S*,2'*S*,5*S*,5'*S*)-2-benzyloxy-2,6,6-trimethyl-bicyclo[3.1.1]-hept-3-ene}-ethane-1,2-diamine

Ee >99%

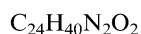
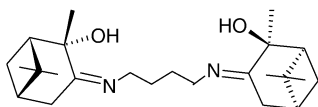
$[\alpha]_D^{20} = 7.6$  (*c* 1, CHCl<sub>3</sub>)

Source of chirality: (+)- $\alpha$ -pinene

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

Stanisław W. Markowicz,\* Marek Figlus, Michał Lejkowski,  
Janina Karolak-Wojciechowska,\* Agnieszka Dzierżawska-Majewska  
and Francis Verpoort

*Tetrahedron: Asymmetry 17 (2006) 434*



Di{(1*S*,1'*S*,2*S*,2'*S*,5*S*,5'*S*)-2-hydroxy-2,6,6-trimethyl-bicyclo[3.1.1]-hept-3-ene}-butane-1,4-diamine

Ee >99%

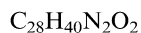
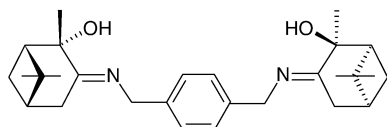
$[\alpha]_D^{20} = 5.8$  (*c* 0.5, CHCl<sub>3</sub>)

Source of chirality: (+)- $\alpha$ -pinene

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

Stanisław W. Markowicz,\* Marek Figlus, Michał Lejkowski,  
Janina Karolak-Wojciechowska,\* Agnieszka Dzierżawska-Majewska  
and Francis Verpoort

*Tetrahedron: Asymmetry 17 (2006) 434*



Di{(1*S*,1'*S*,2*S*,2'*S*,5*S*,5'*S*)-2-hydroxy-2,6,6-trimethyl-bicyclo[3.1.1]-hept-3-ene}- $\alpha,\alpha'$ -*p*-xylylene diamine

$E_e > 99\%$

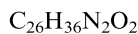
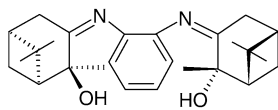
$[\alpha]_D^{20} = 16.0$  (*c* 1,  $CHCl_3$ )

Source of chirality: (+)- $\alpha$ -pinene

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

Stanisław W. Markowicz,\* Marek Figlus, Michał Lejkowski,  
Janina Karolak-Wojciechowska,\* Agnieszka Dzierżawska-Majewska  
and Francis Verpoort

*Tetrahedron: Asymmetry 17 (2006) 434*



Di{(1*S*,1'*S*,2*S*,2'*S*,5*S*,5'*S*)-2-hydroxy-2,6,6-trimethyl-bicyclo[3.1.1]-hept-3-ene}-benzene-1,2-diamine

$E_e > 99\%$

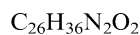
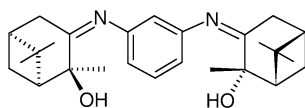
$[\alpha]_D^{20} = -140.3$  (*c* 1,  $CHCl_3$ )

Source of chirality: (+)- $\alpha$ -pinene

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

Stanisław W. Markowicz,\* Marek Figlus, Michał Lejkowski,  
Janina Karolak-Wojciechowska,\* Agnieszka Dzierżawska-Majewska  
and Francis Verpoort

*Tetrahedron: Asymmetry 17 (2006) 434*



Di{(1*S*,1'*S*,2*S*,2'*S*,5*S*,5'*S*)-2-hydroxy-2,6,6-trimethyl-bicyclo[3.1.1]-hept-3-ene}-benzene-1,3-diamine

$E_e > 99\%$

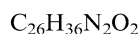
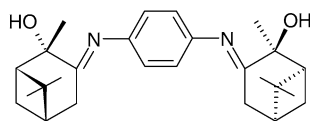
$[\alpha]_D^{20} = -14.8$  (*c* 0.5,  $CHCl_3$ )

Source of chirality: (+)- $\alpha$ -pinene

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

Stanisław W. Markowicz,\* Marek Figlus, Michał Lejkowski,  
Janina Karolak-Wojciechowska,\* Agnieszka Dzierżawska-Majewska  
and Francis Verpoort

*Tetrahedron: Asymmetry 17 (2006) 434*



Di{(1*S*,1'*S*,2*S*,2'*S*,5*S*,5'*S*)-2-hydroxy-2,6,6-trimethyl-bicyclo[3.1.1]-hept-3-ene}-benzene-1,4-diamine

$E_e > 99\%$

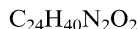
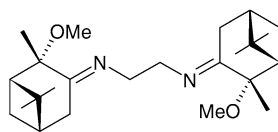
$[\alpha]_D^{20} = 99.4$  (*c* 0.5,  $CHCl_3$ )

Source of chirality: (+)- $\alpha$ -pinene

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

Stanisław W. Markowicz,\* Marek Figlus, Michał Lejkowski,  
Janina Karolak-Wojciechowska,\* Agnieszka Dzierżawska-Majewska  
and Francis Verpoort

*Tetrahedron: Asymmetry 17 (2006) 434*



Di{(1*S*,1'*S*,2*S*,2'*S*,5*S*,5'*S*)-2-methoxy-2,6,6-trimethyl-bicyclo[3.1.1]-hept-3-ene}-ethane-1,2-diamine

Ee >99%

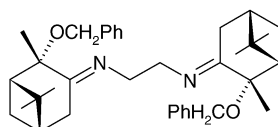
$[\alpha]_D^{20} = 13.6$  (*c* 0.51,  $CHCl_3$ )

Source of chirality: (+)- $\alpha$ -pinene

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

Stanisław W. Markowicz,\* Marek Figlus, Michał Lejkowski,  
Janina Karolak-Wojciechowska,\* Agnieszka Dzierżawska-Majewska  
and Francis Verpoort

*Tetrahedron: Asymmetry 17 (2006) 434*



Di{(1*S*,1'*S*,2*S*,2'*S*,5*S*,5'*S*)-2-benzyloxy-2,6,6-trimethyl-bicyclo[3.1.1]-hept-3-ene}-ethane-1,2-diamine

Ee >99%

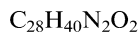
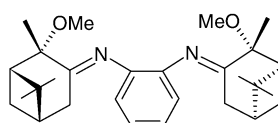
$[\alpha]_D^{20} = 101.4$  (*c* 0.5,  $CHCl_3$ )

Source of chirality: (+)- $\alpha$ -pinene

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

Stanisław W. Markowicz,\* Marek Figlus, Michał Lejkowski,  
Janina Karolak-Wojciechowska,\* Agnieszka Dzierżawska-Majewska  
and Francis Verpoort

*Tetrahedron: Asymmetry 17 (2006) 434*



Di{(1*S*,1'*S*,2*S*,2'*S*,5*S*,5'*S*)-2-methoxy-2,6,6-trimethyl-bicyclo[3.1.1]-hept-3-ene}-benzene-1,2-diamine

Ee >99%

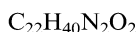
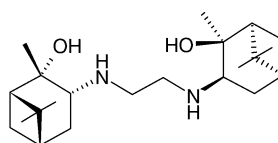
$[\alpha]_D^{20} = -57.4$  (*c* 1,  $CHCl_3$ )

Source of chirality: (+)- $\alpha$ -pinene

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

Stanisław W. Markowicz,\* Marek Figlus, Michał Lejkowski,  
Janina Karolak-Wojciechowska,\* Agnieszka Dzierżawska-Majewska  
and Francis Verpoort

*Tetrahedron: Asymmetry 17 (2006) 434*



Di{(1*S*,1'*S*,2*S*,2'*S*,3*R*,3'*R*,5*S*,5'*S*)-2-hydroxy-2,6,6-trimethyl-bicyclo[3.1.1]-hept-3-ene}-ethane-1,2-diamine

Ee >99%

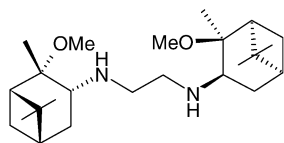
$[\alpha]_D^{20} = -46.5$  (*c* 1,  $CHCl_3$ )

Source of chirality: (+)- $\alpha$ -pinene

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

Stanisław W. Markowicz,\* Marek Figlus, Michał Lejkowski,  
Janina Karolak-Wojciechowska,\* Agnieszka Dzierżawska-Majewska  
and Francis Verpoort

*Tetrahedron: Asymmetry 17 (2006) 434*



Di{(1*S*,1'*S*,2*S*,2'*S*,3*R*,3'*R*,5*S*,5''*S*)-2-methoxy-2,6,6-trimethyl-bicyclo[3.1.1]-hept-3-ane}-ethane-1,2-diamine

Ee >99%

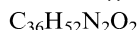
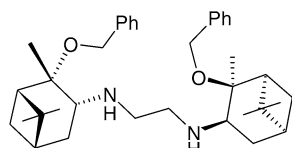
$[\alpha]_D^{20} = -34.1$  (*c* 1, CHCl<sub>3</sub>)

Source of chirality: (+)- $\alpha$ -pinene

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

Stanisław W. Markowicz,\* Marek Figlus, Michał Lejkowski,  
Janina Karolak-Wojciechowska,\* Agnieszka Dzierżawska-Majewska  
and Francis Verpoort

*Tetrahedron: Asymmetry 17 (2006) 434*



Di{(1*S*,1'*S*,2*S*,2'*S*,3*R*,3'*R*,5*S*,5''*S*)-2-benzyloxy-2,6,6-trimethyl-bicyclo[3.1.1]-hept-3-ane}-ethane-1,2-diamine

Ee >99%

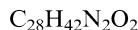
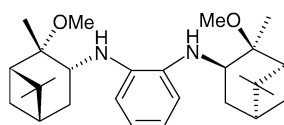
$[\alpha]_D^{20} = -19.8$  (*c* 0.2, CHCl<sub>3</sub>)

Source of chirality: (+)- $\alpha$ -pinene

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

Stanisław W. Markowicz,\* Marek Figlus, Michał Lejkowski,  
Janina Karolak-Wojciechowska,\* Agnieszka Dzierżawska-Majewska  
and Francis Verpoort

*Tetrahedron: Asymmetry 17 (2006) 434*



Di{(1*S*,1'*S*,2*S*,2'*S*,3*R*,3'*R*,5*S*,5''*S*)-2-methoxy-2,6,6-trimethyl-bicyclo[3.1.1]-hept-3-ane}-benzene-1,3-diamine

Ee >99%

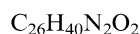
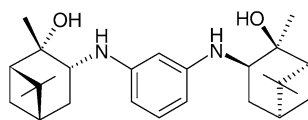
$[\alpha]_D^{20} = -93.5$  (*c* 1, CHCl<sub>3</sub>)

Source of chirality: (+)- $\alpha$ -pinene

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

Stanisław W. Markowicz,\* Marek Figlus, Michał Lejkowski,  
Janina Karolak-Wojciechowska,\* Agnieszka Dzierżawska-Majewska  
and Francis Verpoort

*Tetrahedron: Asymmetry 17 (2006) 434*



Di{(1*S*,1'*S*,2*S*,2'*S*,3*R*,3'*R*,5*S*,5''*S*)-2-hydroxy-2,6,6-trimethyl-bicyclo[3.1.1]-hept-3-ane}-benzene-1,3-diamine

Ee >99%

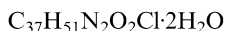
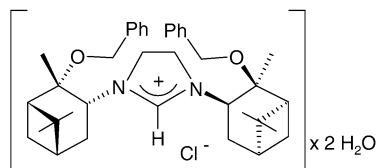
$[\alpha]_D^{20} = -177.8$  (*c* 0.2, CHCl<sub>3</sub>)

Source of chirality: (+)- $\alpha$ -pinene

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

Stanisław W. Markowicz,\* Marek Figlus, Michał Lejkowski,  
Janina Karolak-Wojciechowska,\* Agnieszka Dzierżawska-Majewska  
and Francis Verpoort

*Tetrahedron: Asymmetry 17 (2006) 434*



1,3-Bis{(1*S*,1'*S*,2*S*,2'*S*,3*R*,3'*R*,5*S*,5'*S*)-2-benzyloxy-2,6,6-trimethyl-bicyclo[3.1.1]hept-3-ane}-imidazolium chloride dihydrate

Ee >99%

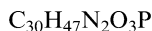
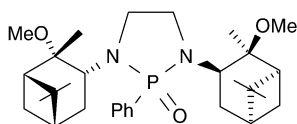
$[\alpha]_D^{20} = -47.1$  (*c* 0.2, CH<sub>3</sub>OH)

Source of chirality: (+)- $\alpha$ -pinene

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

Stanisław W. Markowicz,\* Marek Figlus, Michał Lejkowski,  
Janina Karolak-Wojciechowska,\* Agnieszka Dzierżawska-Majewska  
and Francis Verpoort

*Tetrahedron: Asymmetry 17 (2006) 434*



1,3-Di{(1*S*,1'*S*,2*S*,2'*S*,3*R*,3'*R*,5*S*,5'*S*)-2-methoxy-2,6,6-trimethyl-bicyclo[3.1.1]hept-3-ane}-2-phenyl[1.3.2]diazaphospholidine 2-oxide

Ee >99%

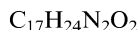
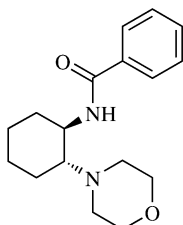
$[\alpha]_D^{20} = +11.3$  (*c* 1, CHCl<sub>3</sub>)

Source of chirality: (+)- $\alpha$ -pinene

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

Javier González-Sabín, Vicente Gotor\* and Francisca Rebolledo\*

*Tetrahedron: Asymmetry 17 (2006) 449*



(1*R*,2*R*)-*N*-[2-(Morpholin-4-yl)cyclohexyl]benzamide

Ee >99%

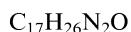
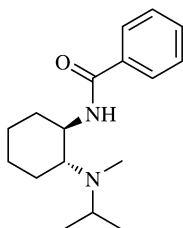
$[\alpha]_D^{20} = -93.7$  (*c* 0.70, CHCl<sub>3</sub>)

Source of chirality: enzymatic resolution

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

Javier González-Sabín, Vicente Gotor\* and Francisca Rebolledo\*

*Tetrahedron: Asymmetry 17 (2006) 449*



(1*R*,2*R*)-*N*-[2-(*N'*-Isopropyl-*N'*-methylamino)cyclohexyl]benzamide

Ee >99%

$[\alpha]_D^{20} = -13.1$  (*c* 0.70, CHCl<sub>3</sub>)

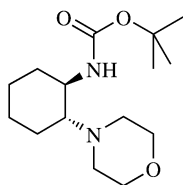
Source of chirality: enzymatic resolution

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



Javier González-Sabín, Vicente Gotor\* and Francisca Rebolledo\*

*Tetrahedron: Asymmetry 17 (2006) 449*



$C_{15}H_{28}N_2O_3$

*tert*-Butyl (1*R*,2*R*)-*N*-[2-(morpholin-4-yl)cyclohexyl]carbamate

Ee >99%

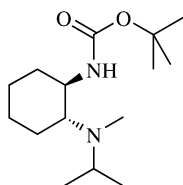
$[\alpha]_D^{20} = -51.6$  (c 0.80,  $CHCl_3$ )

Source of chirality: enzymatic resolution

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

Javier González-Sabín, Vicente Gotor\* and Francisca Rebolledo\*

*Tetrahedron: Asymmetry 17 (2006) 449*



$C_{15}H_{30}N_2O_2$

*tert*-Butyl (1*R*,2*R*)-*N*-[2-(*N'*-isopropyl-*N'*-methylamino)cyclohexyl]carbamate

Ee >99%

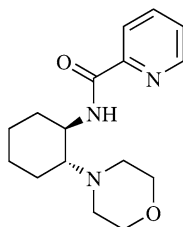
$[\alpha]_D^{20} = -112.5$  (c 0.70,  $CHCl_3$ )

Source of chirality: enzymatic resolution

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

Javier González-Sabín, Vicente Gotor\* and Francisca Rebolledo\*

*Tetrahedron: Asymmetry 17 (2006) 449*



$C_{16}H_{23}N_3O_2$

(1*R*,2*R*)-*N*-[2-(Morpholin-4-yl)cyclohexyl]pyridine-2-carboxamide

Ee >99%

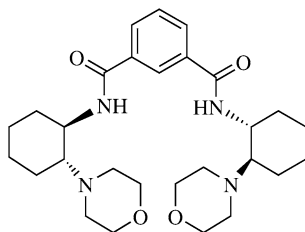
$[\alpha]_D^{20} = -79.2$  (c 0.50,  $CHCl_3$ )

Source of chirality: enzymatic resolution

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

Javier González-Sabín, Vicente Gotor\* and Francisca Rebolledo\*

*Tetrahedron: Asymmetry 17 (2006) 449*



$C_{28}H_{42}N_4O_4$

(1'*R*,1''*R*,2'*R*,2''*R*)-*N,N'*-Bis-[2-(morpholin-4-yl)cyclohexyl]benzene-1,5-dicarboxamide

Ee >99%

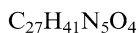
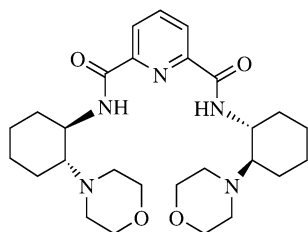
$[\alpha]_D^{20} = -98.9$  (c 0.67,  $CHCl_3$ )

Source of chirality: enzymatic resolution

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

Javier González-Sabín, Vicente Gotor\* and Francisca Rebolledo\*

*Tetrahedron: Asymmetry 17 (2006) 449*



(1'R,1''R,2'R,2''R)-N,N'-Bis-[2-(morpholin-4-yl)cyclohexyl]pyridine-2,6-dicarboxamide

Ee >99%

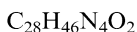
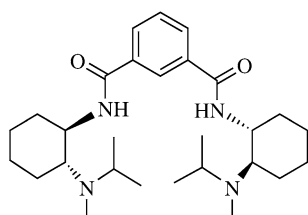
$[\alpha]_D^{20} = -167.0$  (c 0.60,  $CHCl_3$ )

Source of chirality: enzymatic resolution

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

Javier González-Sabín, Vicente Gotor\* and Francisca Rebolledo\*

*Tetrahedron: Asymmetry 17 (2006) 449*



(1'R,1''R,2'R,2''R)-N,N'-Bis-[2-[isopropyl(methyl)amino]cyclohexyl]benzene-1,5-dicarboxamide

Ee >99%

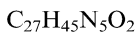
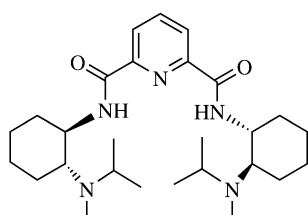
$[\alpha]_D^{20} = -111.1$  (c 0.50,  $CHCl_3$ )

Source of chirality: enzymatic resolution

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

Javier González-Sabín, Vicente Gotor\* and Francisca Rebolledo\*

*Tetrahedron: Asymmetry 17 (2006) 449*



(1'R,1''R,2'R,2''R)-N,N'-Bis-[2-[isopropyl(methyl)amino]cyclohexyl]pyridine-2,6-dicarboxamide

Ee >99%

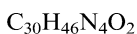
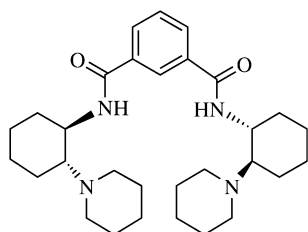
$[\alpha]_D^{20} = -183.8$  (c 0.93,  $CHCl_3$ )

Source of chirality: enzymatic resolution

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

Javier González-Sabín, Vicente Gotor\* and Francisca Rebolledo\*

*Tetrahedron: Asymmetry 17 (2006) 449*



(1'R,1''R,2'R,2''R)-N,N'-Bis-[2-(piperidin-1-yl)cyclohexyl]benzene-1,5-dicarboxamide

Ee >99%

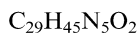
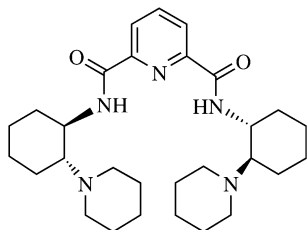
$[\alpha]_D^{20} = -130.7$  (c 0.50,  $CHCl_3$ )

Source of chirality: enzymatic resolution

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

Javier González-Sabín, Vicente Gotor\* and Francisca Rebolledo\*

*Tetrahedron: Asymmetry 17 (2006) 449*



(1'R,1''R,2'R,2''R)-N,N'-Bis[2-(piperidin-1-yl)cyclohexyl]pyridine-2,6-dicarboxamide

Ee >99%

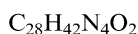
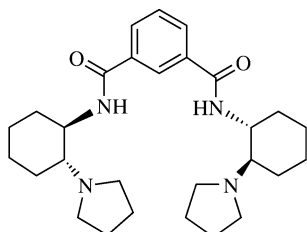
$[\alpha]_D^{20} = -186.9$  (c 0.50,  $CHCl_3$ )

Source of chirality: enzymatic resolution

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

Javier González-Sabín, Vicente Gotor\* and Francisca Rebolledo\*

*Tetrahedron: Asymmetry 17 (2006) 449*



(1'R,1''R,2'R,2''R)-N,N'-Bis[2-(pyrrolidin-1-yl)cyclohexyl]benzene-1,5-dicarboxamide

Ee >99%

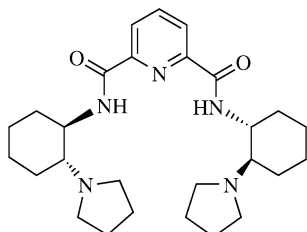
$[\alpha]_D^{20} = -84.9$  (c 0.50,  $CHCl_3$ )

Source of chirality: enzymatic resolution

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

Javier González-Sabín, Vicente Gotor\* and Francisca Rebolledo\*

*Tetrahedron: Asymmetry 17 (2006) 449*



(1R,2R)-N,N'-Bis[2-(pyrrolidin-1-yl)cyclohexyl]pyridine-2,6-dicarboxamide

Ee >99%

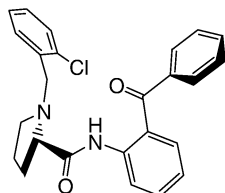
$[\alpha]_D^{20} = -117.8$  (c 0.50,  $CHCl_3$ )

Source of chirality: enzymatic resolution

Absolute configuration: (1R,2R)

Ashot S. Saghiyan,\* Slavik A. Dadayan, Satenik G. Petrosyan,  
Luisa L. Manasyan, Arpine V. Geolchanyan, Silva M. Djamgaryan,  
Sargis A. Andreasyan, Victor I. Maleev and Victor N. Khrustalev

*Tetrahedron: Asymmetry 17 (2006) 455*



(S)-N-(2-Benzoylphenyl)-1-(2-chlorobenzyl)pyrrolidine-2-carboxamide hydrochloride

Ee pure

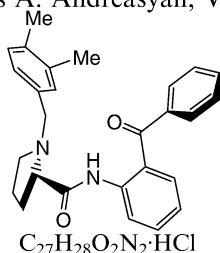
$[\alpha]_D^{20} = -40.2$  (c 1.0, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (S)

Ashot S. Saghiyan,\* Slavik A. Dadayan, Satenik G. Petrosyan,  
Luisa L. Manasyan, Arpine V. Geolchanyan, Silva M. Djamgaryan,  
Sargis A. Andreasyan, Victor I. Maleev and Victor N. Khrustalev

*Tetrahedron: Asymmetry 17 (2006) 455*



(*S*)-*N*-(2-Benzoylphenyl)-1-(3,4-dimethylbenzyl)pyrrolidine-2-carboxamide hydrochloride

Ee pure

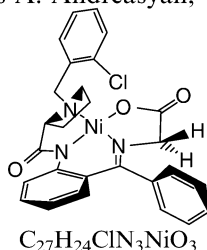
$[\alpha]_D^{20} = -38.5$  (*c* 1.0, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Ashot S. Saghiyan,\* Slavik A. Dadayan, Satenik G. Petrosyan,  
Luisa L. Manasyan, Arpine V. Geolchanyan, Silva M. Djamgaryan,  
Sargis A. Andreasyan, Victor I. Maleev and Victor N. Khrustalev

*Tetrahedron: Asymmetry 17 (2006) 455*



(*S*)-{([2-[1-(2-Chlorobenzyl)pyrrolidine-2-carboxamide]phenyl]phenylmethylene)-glycinato-*N,N',N'',O*} nickel(II)

Ee pure

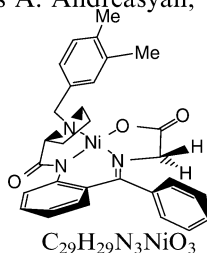
$[\alpha]_D^{20} = +2364$  (*c* 0.05, CHCl<sub>3</sub>)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Ashot S. Saghiyan,\* Slavik A. Dadayan, Satenik G. Petrosyan,  
Luisa L. Manasyan, Arpine V. Geolchanyan, Silva M. Djamgaryan,  
Sargis A. Andreasyan, Victor I. Maleev and Victor N. Khrustalev

*Tetrahedron: Asymmetry 17 (2006) 455*



(*S*)-{([2-[1-(3,4-Dimethylbenzyl)pyrrolidine-2-carboxamide]phenyl]phenylmethylene)-glycinato-*N,N',N'',O*} nickel(II)

Ee pure

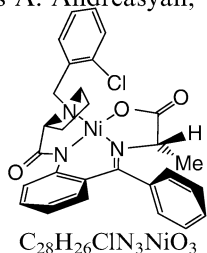
$[\alpha]_D^{20} = +1513$  (*c* 0.05, CHCl<sub>3</sub>)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Ashot S. Saghiyan,\* Slavik A. Dadayan, Satenik G. Petrosyan,  
Luisa L. Manasyan, Arpine V. Geolchanyan, Silva M. Djamgaryan,  
Sargis A. Andreasyan, Victor I. Maleev and Victor N. Khrustalev

*Tetrahedron: Asymmetry 17 (2006) 455*



(*S*)-{([2-[1-(2-Chlorobenzyl)pyrrolidine-2-carboxamide]phenyl]phenylmethylene)-(*S*)-alaninato-*N,N',N'',N*} nickel(II)

Ee pure

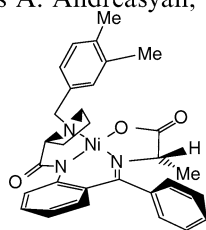
$[\alpha]_D^{20} = +2574$  (*c* 0.05, CHCl<sub>3</sub>)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S,S*)

Ashot S. Saghiyan,\* Slavik A. Dadayan, Satenik G. Petrosyan,  
Luisa L. Manasyan, Arpine V. Geolchanyan, Silva M. Djamgaryan,  
Sargis A. Andreyan, Victor I. Maleev and Victor N. Khrustalev

*Tetrahedron: Asymmetry 17 (2006) 455*



(*S*)-{([1-(3,4-Dimethylbenzyl)pyrrolidine-2-carboxamide]phenyl)methylene}-(*S*)-alaninato-*N,N',N'',O*} nickel(II)

Ee pure

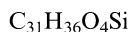
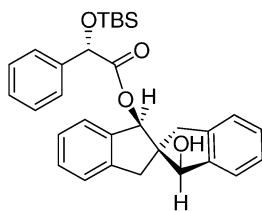
$[\alpha]_D^{20} = +2562$  (*c* 0.05,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: (*S,S*)

Zhenqiu Guo, Xiaoyu Guan and Zhiyong Chen\*

*Tetrahedron: Asymmetry 17 (2006) 468*



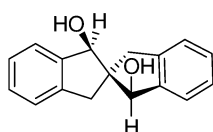
(1*R*,2*R*,1'*R*)-2,2'-Spirobiindan-1-((2*S*)-(O-*tert*-butyldimethylsilyl)mandeloxyl)-1'-ol

Ee  $\geq 99\%$

$[\alpha]_D^{20} = -84.5$  (*c* 10.640, 0.1 dm, chloroform)

Zhenqiu Guo, Xiaoyu Guan and Zhiyong Chen\*

*Tetrahedron: Asymmetry 17 (2006) 468*



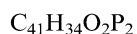
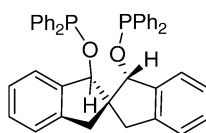
(1*R*,2*R*,1'*R*)-2,2'-Spirobiindan-1,1'-diol

Ee  $\geq 99\%$

$[\alpha]_D^{20} = -50.3$  (*c* 0.056, 1 dm, Sure/Seal TM acetone)

Zhenqiu Guo, Xiaoyu Guan and Zhiyong Chen\*

*Tetrahedron: Asymmetry 17 (2006) 468*



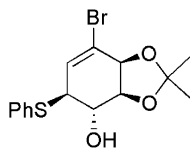
(1*R*,2*R*,1'*R*)-1,1'-Bis(diphenylphosphinoxy)-2,2'-spirobiindane

Ee  $\geq 99\%$

$[\alpha]_D^{20} = +8.4$  (*c* 0.154,  $CHCl_3$ )

Ana Bellomo and David Gonzalez\*

*Tetrahedron: Asymmetry 17 (2006) 474*



$C_{15}H_{17}BrO_3S$

(1*S*,2*R*,3*S*,6*S*)-6-(Phenylthio)-2,3-isopropylidendioxy-4-bromocyclohexene-1-ol

Ee >98%

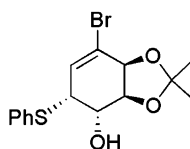
$[\alpha]_D^{20} = +73.6$  (c 3.2,  $CHCl_3$ )

Source of chirality: enzymatic catalysis

Absolute configuration: (1*S*,2*R*,3*S*,6*S*)

Ana Bellomo and David Gonzalez\*

*Tetrahedron: Asymmetry 17 (2006) 474*



$C_{15}H_{17}BrO_3S$

(1*S*,2*R*,3*S*,6*R*)-6-(Phenylthio)-2,3-isopropylidendioxy-4-bromocyclohexene-1-ol

Ee >98%

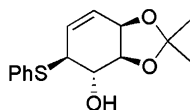
$[\alpha]_D^{20} = -103.3$  (c 0.7,  $CHCl_3$ )

Source of chirality: enzymatic catalysis

Absolute configuration: (1*S*,2*R*,3*S*,6*R*)

Ana Bellomo and David Gonzalez\*

*Tetrahedron: Asymmetry 17 (2006) 474*



$C_{15}H_{18}O_3S$

(1*S*,2*R*,3*R*,6*S*)-6-(Phenylthio)-2,3-isopropylidendioxy-cyclohex-4-ene-1-ol

Ee >98%

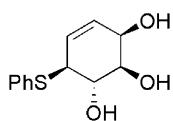
$[\alpha]_D^{20} = +43.4$  (c 0.90,  $CH_2Cl_2$ )

Source of chirality: enzymatic catalysis

Absolute configuration: (1*S*,2*R*,3*S*,6*S*)

Ana Bellomo and David Gonzalez\*

*Tetrahedron: Asymmetry 17 (2006) 474*



$C_{12}H_{14}O_3S$

(1*S*,2*R*,3*R*,6*S*)-6-(Phenylthio)-cyclohex-4-ene-1,2,3-triol

Ee >98%

$[\alpha]_D^{22} = +127.2$  (c 0.64, MeOH)

Source of chirality: enzymatic catalysis

Absolute configuration: (1*S*,2*R*,3*R*,6*S*)