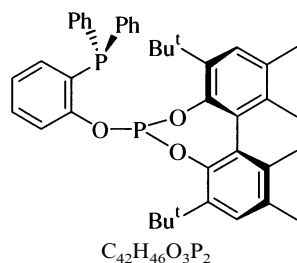


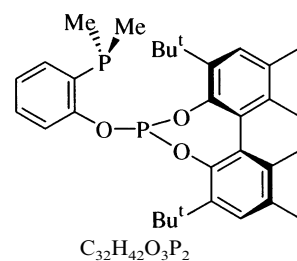
Andrés Suárez and Antonio Pizzano\*

*Tetrahedron: Asymmetry* 12 (2001) 25012-(Diphenylphosphino)phenyl-(*S*)-3,3'-di-*tert*-butyl-5,5',6,6'-tetramethyl-1,1'-biphen-2,2'-diyl-phosphite

Ee = 100%

 $[\alpha]_D^{20} = 406$  (*c* 1.0, THF)Source of chirality: (*S*)-3,3'-di-*tert*-butyl-5,5',6,6'-tetramethyl-1,1'-biphenyl-2,2'-diol

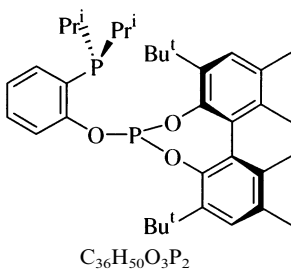
Andrés Suárez and Antonio Pizzano\*

*Tetrahedron: Asymmetry* 12 (2001) 25012-(Dimethylphosphino)phenyl-(*S*)-3,3'-di-*tert*-butyl-5,5',6,6'-tetramethyl-1,1'-biphen-2,2'-diyl-phosphite

Ee = 100%

 $[\alpha]_D^{20} = 347$  (*c* 1.0, THF)Source of chirality: (*S*)-3,3'-di-*tert*-butyl-5,5',6,6'-tetramethyl-1,1'-biphenyl-2,2'-diol

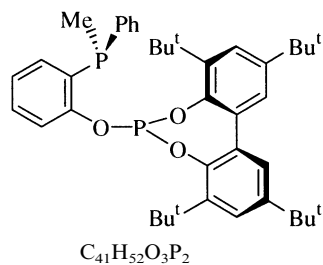
Andrés Suárez and Antonio Pizzano\*

*Tetrahedron: Asymmetry* 12 (2001) 25012-(Diisopropylphosphino)phenyl-(*S*)-3,3'-di-*tert*-butyl-5,5',6,6'-tetramethyl-1,1'-biphen-2,2'-diyl-phosphite

Ee = 100%

 $[\alpha]_D^{20} = 336$  (*c* 1.0, THF)Source of chirality: (*S*)-3,3'-di-*tert*-butyl-5,5',6,6'-tetramethyl-1,1'-biphenyl-2,2'-diol

Andrés Suárez and Antonio Pizzano\*

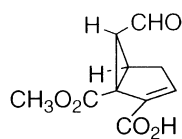
*Tetrahedron: Asymmetry* 12 (2001) 2501(*S*)-2-(Methylphenylphosphino)phenyl-3,3',5,5'-tetra-*tert*-butyl-1,1'-biphen-2,2'-diyl-phosphite

Ee = 100%

 $[\alpha]_D^{20} = 1.6$  (*c* 1.0, THF)Source of chirality: (*S*)-*o*-anisylmethylphenylphosphine

Satomi Niwayama\* and Jianxiu Liu

*Tetrahedron: Asymmetry* 12 (2001) 2537



6-Formyl-1-methoxycarbonylbicyclo[3.1.0]hex-2-ene-2-carboxylic acid

E.e. = 100%

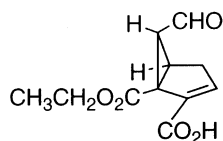
$[\alpha]_D = -152.7$  ( $c = 0.74$ , MeOH)

Source of chirality: asymmetric synthesis from mannitol

Absolute configuration: 1*S*,5*R*,6*S*

Satomi Niwayama\* and Jianxiu Liu

*Tetrahedron: Asymmetry* 12 (2001) 2537



6-Formyl-1-ethoxycarbonylbicyclo[3.1.0]hex-2-ene-2-carboxylic acid

E.e. = 100%

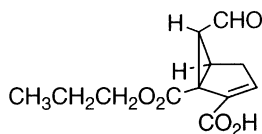
$[\alpha]_D = -127.0$  ( $c = 3.1$ , MeOH)

Source of chirality: asymmetric synthesis from mannitol

Absolute configuration: 1*S*,5*R*,6*S*

Satomi Niwayama\* and Jianxiu Liu

*Tetrahedron: Asymmetry* 12 (2001) 2537



6-Formyl-1-propoxycarbonylbicyclo[3.1.0]hex-2-ene-2-carboxylic acid

E.e. = 100%

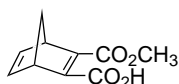
$[\alpha]_D = -217.0$  ( $c = 0.35$ , MeOH)

Source of chirality: asymmetric synthesis from mannitol

Absolute configuration: 1*S*,5*R*,6*S*

Satomi Niwayama\* and Jianxiu Liu

*Tetrahedron: Asymmetry* 12 (2001) 2537



3-Methoxycarbonylbicyclo[2.2.1]hept-2,5-diene-2-carboxylic acid

E.e. = 100%

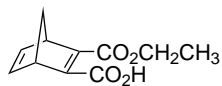
$[\alpha]_D = -25.7$  ( $c = 1.9$ ,  $CHCl_3$ )

Source of chirality: asymmetric synthesis from mannitol

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

Satomi Niwayama\* and Jianxiu Liu

*Tetrahedron: Asymmetry 12 (2001) 2537*



3-Ethoxycarbonylbicyclo[2.2.1]hept-2,5-diene-2-carboxylic acid

E.e. = 100%

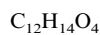
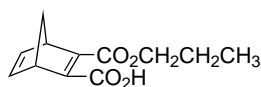
$[\alpha]_D = -15.4$  ( $c = 2.7$ ,  $CHCl_3$ )

Source of chirality: asymmetric synthesis from mannitol

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

Satomi Niwayama\* and Jianxiu Liu

*Tetrahedron: Asymmetry 12 (2001) 2537*



3-Propoxycarbonylbicyclo[2.2.1]hept-2,5-diene-2-carboxylic acid

Ee = 100%

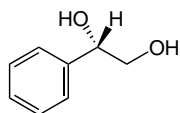
$[\alpha]_D = -10.2$  ( $c = 1.9$ ,  $CHCl_3$ )

Source of chirality: asymmetric synthesis from mannitol

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

Toshikuni Tsujigami, Takeshi Sugai and Hiromichi Ohta\*

*Tetrahedron: Asymmetry 12 (2001) 2543*



(*S*)-1-Phenylethane-1,2-diol

E.e. = 100%

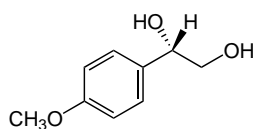
$[\alpha]_D^{25} = +71.9$  ( $c = 1.0$ ,  $CHCl_3$ )

Source of chirality: microbial reduction

Absolute configuration: *S*

Toshikuni Tsujigami, Takeshi Sugai and Hiromichi Ohta\*

*Tetrahedron: Asymmetry 12 (2001) 2543*



(*S*)-1-*p*-Methoxyphenylethane-1,2-diol

E.e. = 100%

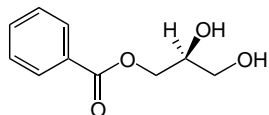
$[\alpha]_D^{25} = +64.5$  ( $c = 1.0$ ,  $CHCl_3$ )

Source of chirality: microbial reduction

Absolute configuration: *S*

Toshikuni Tsujigami, Takeshi Sugai and Hiromichi Ohta\*

*Tetrahedron: Asymmetry 12 (2001) 2543*



(*S*)-1-Benzoyloxy-2,3-propanediol

E.e. = 80%

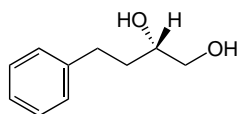
$[\alpha]_D^{23} = +4.1$  (*c* 0.94,  $CH_3CH_2OH$ )

Source of chirality: microbial reduction

Absolute configuration: *S*

Toshikuni Tsujigami, Takeshi Sugai and Hiromichi Ohta\*

*Tetrahedron: Asymmetry 12 (2001) 2543*



(*S*)-4-Phenyl-1,2-butanediol

E.e. = 94%

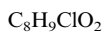
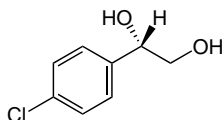
$[\alpha]_D^{20} = -32.3$  (*c* 1.0,  $CH_3CH_2OH$ )

Source of chirality: microbial reduction

Absolute configuration: *S*

Toshikuni Tsujigami, Takeshi Sugai and Hiromichi Ohta\*

*Tetrahedron: Asymmetry 12 (2001) 2543*



(*S*)-1-*p*-Chlorophenylethane-1,2-diol

E.e. = 100%

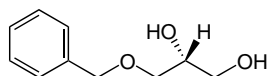
$[\alpha]_D^8 = +59.5$  (*c* 1.1,  $CHCl_3$ )

Source of chirality: microbial reduction

Absolute configuration: *S*

Toshikuni Tsujigami, Takeshi Sugai and Hiromichi Ohta\*

*Tetrahedron: Asymmetry 12 (2001) 2543*



(*R*)-1-Benzoyloxy-2,3-propanediol

E.e. = 73%

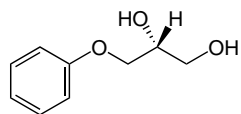
$[\alpha]_D^{20} = -0.98$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: microbial reduction

Absolute configuration: *R*

Toshikuni Tsujigami, Takeshi Sugai and Hiromichi Ohta\*

*Tetrahedron: Asymmetry* 12 (2001) 2543



C<sub>9</sub>H<sub>12</sub>O<sub>3</sub>

(*R*)-1-Phenoxy-2,3-propanediol

E.e. = 88%

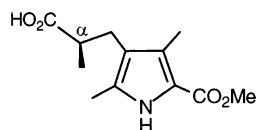
[ $\alpha$ ]<sub>D</sub><sup>20</sup> = -1.6 (c 1.0, CHCl<sub>3</sub>)

Source of chirality: microbial reduction

Absolute configuration: *R*

Stefan E. Boiadjev and David A. Lightner\*

*Tetrahedron: Asymmetry* 12 (2001) 2551



C<sub>12</sub>H<sub>17</sub>NO<sub>4</sub>

Methyl 4-(2'*R*-carboxypropyl)-3,5-dimethyl-1*H*-pyrrole-2-carboxylate

E.e. = 100%

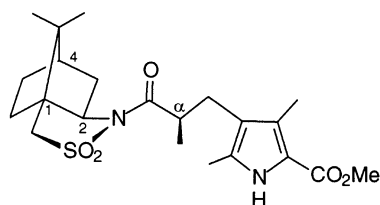
[ $\alpha$ ]<sub>D</sub><sup>20</sup> = -51.2 (c 1.2, CHCl<sub>3</sub>)

Source of chirality: resolution

Absolute configuration: ( $\alpha$ *R*) (assigned by X-ray of amide with camphor sultam)

Stefan E. Boiadjev and David A. Lightner\*

*Tetrahedron: Asymmetry* 12 (2001) 2551



C<sub>22</sub>H<sub>32</sub>N<sub>2</sub>O<sub>5</sub>S

*N*-[3-(2,4-Dimethyl-5-methoxycarbonyl-1*H*-pyrrol-3-yl)-(2*R*)-methylpropanoyl]-(1'*S*,2'*R*,4'*R*)-camphor-2',10'-sultam

E.e. = 100%

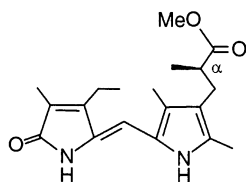
[ $\alpha$ ]<sub>D</sub><sup>20</sup> = -92.2 (c 1.2, CHCl<sub>3</sub>)

Source of chirality: resolution by crystallization

Absolute configuration: (1*S*,2*R*,4*R*, $\alpha$ *R*) (assigned by X-ray)

Stefan E. Boiadjev and David A. Lightner\*

*Tetrahedron: Asymmetry* 12 (2001) 2551



C<sub>19</sub>H<sub>26</sub>N<sub>2</sub>O<sub>3</sub>

Methyl ( $\alpha$ *R*)-methylxanthobilirubinate

E.e. = 100%

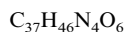
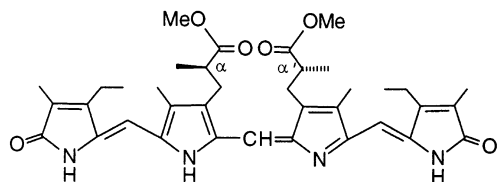
[ $\alpha$ ]<sub>D</sub><sup>20</sup> = -55.8 (c 0.3, CHCl<sub>3</sub>)

Source of chirality: synthesis and resolution

Absolute configuration: ( $\alpha$ *R*) (assigned by X-ray of monopyrrole precursor)

Stefan E. Boiadjiev and David A. Lightner\*

*Tetrahedron: Asymmetry* 12 (2001) 2551



( $\alpha R, \alpha' R$ )-Dimethylmesobiliverdin-XIII $\alpha$  dimethyl ester

E.e. = 100%

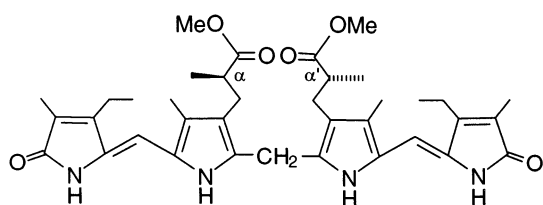
$[\alpha]_{436}^{20} = +2190$  ( $c$   $4.3 \times 10^{-3}$ ,  $CHCl_3$ )

Source of chirality: synthesis and resolution

Absolute configuration: ( $\alpha R, \alpha' R$ ) (assigned by X-ray of monopyrrole precursor)

Stefan E. Boiadjiev and David A. Lightner\*

*Tetrahedron: Asymmetry* 12 (2001) 2551



( $\alpha R, \alpha' R$ )-Dimethylmesobilirubin-XIII $\alpha$  dimethyl ester

E.e. = 100%

$[\alpha]_D^{20} = +240$  ( $c$   $5.0 \times 10^{-3}$ ,  $CHCl_3$ )

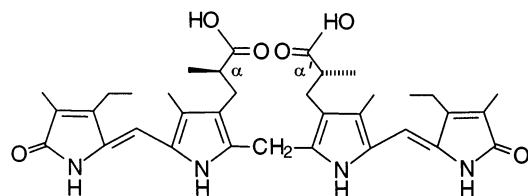
CD:  $\Delta\epsilon_{413}^{max} = +36$ ,  $\Delta\epsilon_{375}^{max} = -22$  ( $c$   $1.5 \times 10^{-5}$  M,  $CHCl_3$ )

Source of chirality: synthesis and resolution

Absolute configuration: ( $\alpha R, \alpha' R$ ) (assigned by X-ray of monopyrrole precursor)

Stefan E. Boiadjiev and David A. Lightner\*

*Tetrahedron: Asymmetry* 12 (2001) 2551



( $\alpha R, \alpha' R$ )-Dimethylmesobilirubin-XIII $\alpha$

E.e. = 100%

$[\alpha]_D^{20} = +5530$  ( $c$   $5.0 \times 10^{-3}$ ,  $CHCl_3$ )

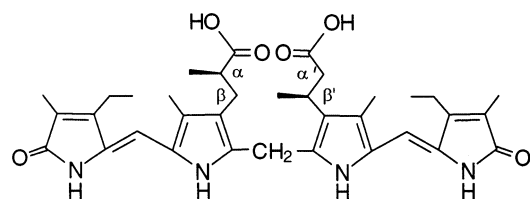
CD:  $\Delta\epsilon_{435}^{max} = +344$ ,  $\Delta\epsilon_{391}^{max} = -193$  ( $c$   $1.4 \times 10^{-5}$  M,  $CHCl_3$ )

Source of chirality: synthesis and resolution

Absolute configuration: ( $\alpha R, \alpha' R$ ) (assigned by X-ray of monopyrrole precursor)

Stefan E. Boiadjiev and David A. Lightner\*

*Tetrahedron: Asymmetry* 12 (2001) 2551



( $\alpha R, \beta' S$ )-Dimethylmesobilirubin-XIII $\alpha$

E.e. = 100%

$[\alpha]_D^{20} = +2720$  ( $c$   $4.9 \times 10^{-3}$ ,  $CHCl_3$ )

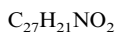
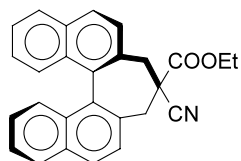
CD:  $\Delta\epsilon_{430}^{max} = +165$ ,  $\Delta\epsilon_{386}^{max} = -100$  ( $c$   $1.5 \times 10^{-5}$  M,  $CHCl_3$ )

Source of chirality: synthesis and resolution

Absolute configuration: ( $\alpha R, \beta' S$ ) (assigned by X-ray of monopyrrole precursor)

Anne Gaucher, Yohan Zuliani, Daniel Cabaret, Michel Wakselman and Jean-Paul Mazaleyrat\*

*Tetrahedron: Asymmetry 12 (2001) 2571*



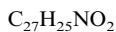
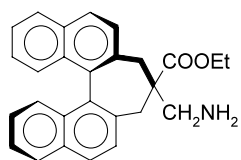
2',1':1,2;1'',2'':3,4-Dinaphthycyclohepta-1,3-diene-6-cyano-6-carboxylic acid ethyl ester

$[\alpha]_{546}^{25} = -358$  (c 0.3; MeOH)

Absolute configuration aR (assigned by analogy)

Anne Gaucher, Yohan Zuliani, Daniel Cabaret, Michel Wakselman and Jean-Paul Mazaleyrat\*

*Tetrahedron: Asymmetry 12 (2001) 2571*



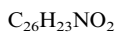
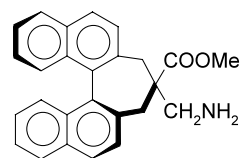
2',1':1,2;1'',2'':3,4-Dinaphthycyclohepta-1,3-diene-6-aminomethyl-6-carboxylic acid ethyl ester (H-β<sup>2,2</sup>-HBin-OEt)

$[\alpha]_{546}^{25} = -297$  (c 0.2; MeOH)

Absolute configuration aR (assigned by analogy)

Anne Gaucher, Yohan Zuliani, Daniel Cabaret, Michel Wakselman and Jean-Paul Mazaleyrat\*

*Tetrahedron: Asymmetry 12 (2001) 2571*



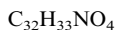
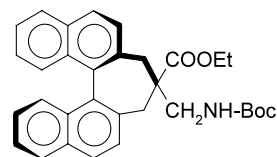
2',1':1,2;1'',2'':3,4-Dinaphthycyclohepta-1,3-diene-6-aminomethyl-6-carboxylic acid methyl ester (H-β<sup>2,2</sup>-HBin-OMe)

$[\alpha]_{546}^{25} = +299$  (c 0.1; MeOH)

Absolute configuration aS (assigned by analogy)

Anne Gaucher, Yohan Zuliani, Daniel Cabaret, Michel Wakselman and Jean-Paul Mazaleyrat\*

*Tetrahedron: Asymmetry 12 (2001) 2571*



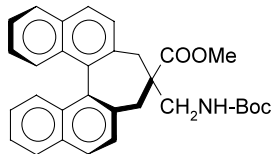
2',1':1,2;1'',2'':3,4-Dinaphthycyclohepta-1,3-diene-6-N-tert-butylloxycarbonylaminomethyl-6-carboxylic acid ethyl ester (Boc-β<sup>2,2</sup>-HBin-OEt)

$[\alpha]_{546}^{25} = -178$  (c 0.2; MeOH)

Absolute configuration aR (assigned by analogy)

Anne Gaucher, Yohan Zuliani, Daniel Cabaret, Michel Wakselman and Jean-Paul Mazaleyrat\*

*Tetrahedron: Asymmetry 12 (2001) 2571*



C<sub>31</sub>H<sub>31</sub>NO<sub>4</sub>

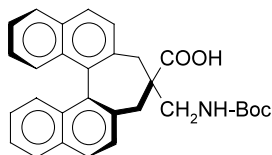
2',1':1,2;1'',2'':3,4-Dinaphthycyclohepta-1,3-diene-6-*N-tert*-butyloxycarbonylaminomethyl-6-carboxylic acid methyl ester (Boc-β<sup>2,2</sup>-HBin-OMe)

[α]<sub>546</sub><sup>25</sup> = +179 (c 0.2; MeOH)

Absolute configuration aS (assigned by analogy)

Anne Gaucher, Yohan Zuliani, Daniel Cabaret, Michel Wakselman and Jean-Paul Mazaleyrat\*

*Tetrahedron: Asymmetry 12 (2001) 2571*



C<sub>30</sub>H<sub>29</sub>NO<sub>4</sub>

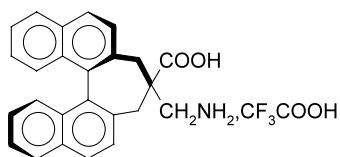
2',1':1,2;1'',2'':3,4-Dinaphthycyclohepta-1,3-diene-6-*N-tert*-butyloxycarbonylaminomethyl-6-carboxylic acid (Boc-β<sup>2,2</sup>-HBin-OH)

[α]<sub>546</sub><sup>25</sup> = +215 (c 0.2; MeOH)

Absolute configuration aS (assigned by analogy)

Anne Gaucher, Yohan Zuliani, Daniel Cabaret, Michel Wakselman and Jean-Paul Mazaleyrat\*

*Tetrahedron: Asymmetry 12 (2001) 2571*



C<sub>27</sub>H<sub>22</sub>F<sub>3</sub>NO<sub>4</sub>

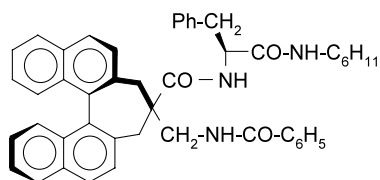
2',1':1,2;1'',2'':3,4-Dinaphthycyclohepta-1,3-diene-6-aminomethyl-6-carboxylic acid, trifluoroacetate (H-β<sup>2,2</sup>-HBin-OH, CF<sub>3</sub>COOH)

[α]<sub>546</sub><sup>25</sup> = -255 (c 0.2; MeOH)

Absolute configuration aR (assigned by analogy)

Anne Gaucher, Yohan Zuliani, Daniel Cabaret, Michel Wakselman and Jean-Paul Mazaleyrat\*

*Tetrahedron: Asymmetry 12 (2001) 2571*



C<sub>47</sub>H<sub>45</sub>N<sub>3</sub>O<sub>3</sub>

Bz-(*R*)-β<sup>2,2</sup>-HBin-(*L*)-Phe-NHC<sub>6</sub>H<sub>11</sub>

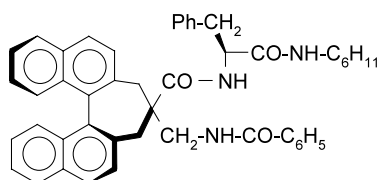
[α]<sub>546</sub><sup>25</sup> = -11 (c 0.1; MeOH)

Absolute configuration aR,S (assigned by analogy)



Anne Gaucher, Yohan Zuliani, Daniel Cabaret, Michel Wakselman and Jean-Paul Mazaleyrat\*

*Tetrahedron: Asymmetry 12 (2001) 2571*



$C_{47}H_{45}N_3O_3$

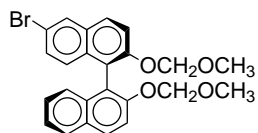
Bz-(S)- $\beta^{2,2}$ -HBin-(L)-Phe-NHC<sub>6</sub>H<sub>11</sub>

$[\alpha]_{346}^{25} = +141$  ( $c$  0.15; MeOH)

Absolute configuration a*S,S* (assigned by analogy)

Doss Jayaprakash and Hiroaki Sasai\*

*Tetrahedron: Asymmetry 12 (2001) 2589*



$C_{24}H_{21}BrO_4$

6-Bromo-2,2'-bis(methoxymethoxy)-1,1'-binaphthalene

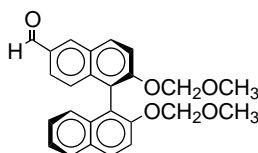
$[\alpha]_D^{28} = +59.1$  ( $c$  = 0.45, CHCl<sub>3</sub>)

Source of chirality: BINOL

Absolute configuration: *R*

Doss Jayaprakash and Hiroaki Sasai\*

*Tetrahedron: Asymmetry 12 (2001) 2589*



$C_{25}H_{22}O_5$

6-Formyl-2,2'-bis(methoxymethoxy)-1,1'-binaphthalene

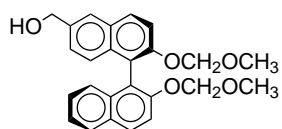
$[\alpha]_D^{28} = +57.6$  ( $c$  = 0.45, CHCl<sub>3</sub>)

Source of chirality: BINOL

Absolute configuration: *R*

Doss Jayaprakash and Hiroaki Sasai\*

*Tetrahedron: Asymmetry 12 (2001) 2589*



$C_{25}H_{24}O_5$

6-Hydroxymethyl-2,2'-bis(methoxymethoxy)-1,1'-binaphthalene

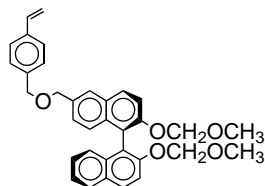
$[\alpha]_D^{29} = +57.0$  ( $c$  = 0.45, CHCl<sub>3</sub>)

Source of chirality: BINOL

Absolute configuration: *R*

Doss Jayaprakash and Hiroaki Sasai\*

*Tetrahedron: Asymmetry 12 (2001) 2589*



6-(4-Vinylbenzyloxy)methyl-2,2'-bismethoxymethoxy-1,1'-binaphthalene

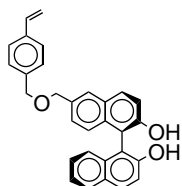
$[\alpha]_D^{27} = +43.3$  ( $c=1$ ,  $CHCl_3$ )

Source of chirality: BINOL

Absolute configuration: *R*

Doss Jayaprakash and Hiroaki Sasai\*

*Tetrahedron: Asymmetry 12 (2001) 2589*



6-(4-Vinylbenzyloxy)methyl-2,2'-dihydroxy-1,1'-binaphthalene

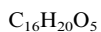
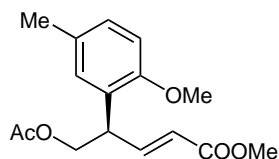
$[\alpha]_D^{28} = -46.9$  ( $c=0.48$ ,  $CHCl_3$ )

Source of chirality: BINOL

Absolute configuration: *R*

Machiko Ono, Keiko Suzuki, Shin Tanikawa and Hiroyuki Akita\*

*Tetrahedron: Asymmetry 12 (2001) 2597*



Methyl (4*R*)-5-acetoxy-4-(2'-methoxy-5'-methyl)phenyl-(2*E*)-pentenoate

E.e. = 96%

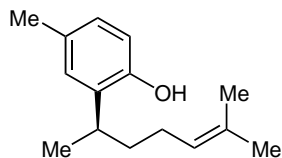
$[\alpha]_D^{26} +11.3$  ( $c=0.5$ ,  $CHCl_3$ )

Source of chirality: lipase-catalyzed hydrolysis

Absolute configuration: (4*R*)

Machiko Ono, Keiko Suzuki, Shin Tanikawa and Hiroyuki Akita\*

*Tetrahedron: Asymmetry 12 (2001) 2597*



(*R*)-Elvirol

E.e. >99%

$[\alpha]_D^{30} -37.1$  ( $c=0.23$ ,  $CHCl_3$ )

Source of chirality: lipase-catalyzed hydrolysis

Absolute configuration: (*R*)

A. Solladié-Cavallo,\* M. Balaz, M. Salisova, C. Suteu,\*  
L. A. Nafie,\* X. Cao and T. B. Freedman\*

*Tetrahedron: Asymmetry 12 (2001) 2605*

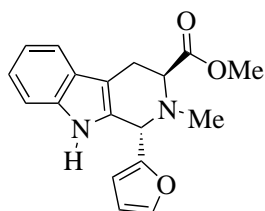
E.r. = 100/0  
[ $\alpha$ ]<sub>D</sub><sup>20</sup> = -58 (c = 2.2, MeOH)  
Absolute configuration: 1*S*,2*S*

C<sub>14</sub>H<sub>18</sub>O<sub>2</sub>S

Tetrahydro-4,4-dimethyl-8-hydroxy-2*H*-1,3-naphthoxathiane

H. J. Zhu,\* B. T. Zhao, G. Y. Zuo, C. U. Pittman, Jr., W. M. Dai\*  
and X. J. Hao\*

*Tetrahedron: Asymmetry 12 (2001) 2613*



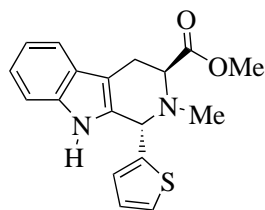
[ $\alpha$ ]<sub>D</sub> -45.0 (c 0.506, CHCl<sub>3</sub>)  
Source of chirality: L-*N*-methyltryptophan  
Absolute configuration: (1*S*,3*S*)

C<sub>18</sub>H<sub>18</sub>N<sub>2</sub>O<sub>3</sub>

(1*S*,3*S*)-1-(2-Furyl)-2-methyl-1,2,3,4-tetrahydro- $\beta$ -carboline methyl ester

H. J. Zhu,\* B. T. Zhao, G. Y. Zuo, C. U. Pittman, Jr., W. M. Dai\*  
and X. J. Hao\*

*Tetrahedron: Asymmetry 12 (2001) 2613*



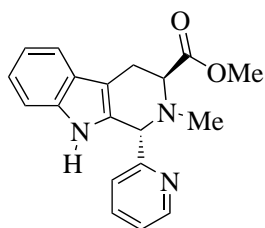
[ $\alpha$ ]<sub>D</sub> -54.2 (c 0.618, CHCl<sub>3</sub>)  
Source of chirality: L-*N*-methyltryptophan  
Absolute configuration: (1*S*,3*S*)

C<sub>18</sub>H<sub>18</sub>N<sub>2</sub>O<sub>2</sub>S

(1*S*,3*S*)-1-(2-Thiophyl)-2-methyl-1,2,3,4-tetrahydro- $\beta$ -carboline methyl ester

H. J. Zhu,\* B. T. Zhao, G. Y. Zuo, C. U. Pittman, Jr., W. M. Dai\*  
and X. J. Hao\*

*Tetrahedron: Asymmetry 12 (2001) 2613*



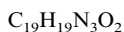
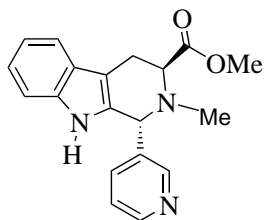
[ $\alpha$ ]<sub>D</sub> -200.5 (c 0.52, CHCl<sub>3</sub>)  
Source of chirality: L-*N*-methyltryptophan  
Absolute configuration: (1*S*,3*S*)

C<sub>19</sub>H<sub>19</sub>N<sub>3</sub>O<sub>2</sub>

(1*S*,3*S*)-1-(2-Pyridyl)-2-methyl-1,2,3,4-tetrahydro- $\beta$ -carboline methyl ester

H. J. Zhu,\* B. T. Zhao, G. Y. Zuo, C. U. Pittman, Jr., W. M. Dai\* and X. J. Hao\*

*Tetrahedron: Asymmetry 12 (2001) 2613*



(1*S*,3*S*)-1-(3-Pyridyl)-2-methyl-1,2,3,4-tetrahydro-β-carboline methyl ester

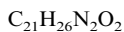
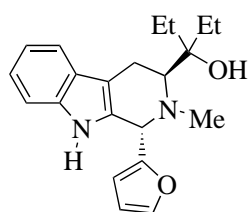
[α]<sub>D</sub> -88.3 (c 0.932, CHCl<sub>3</sub>)

Source of chirality: L-*N*-methyltryptophan

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

H. J. Zhu,\* B. T. Zhao, G. Y. Zuo, C. U. Pittman, Jr., W. M. Dai\* and X. J. Hao\*

*Tetrahedron: Asymmetry 12 (2001) 2613*



(1*S*,3*S*)-1-(2-Furyl)-3-(1-ethyl-1-hydroxypropyl)-2-methyl-1,2,3,4-tetrahydro-β-carboline

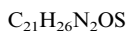
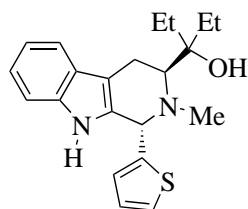
[α]<sub>D</sub> +8.58 (c 1.37, CHCl<sub>3</sub>)

Source of chirality: L-*N*-methyltryptophan

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

H. J. Zhu,\* B. T. Zhao, G. Y. Zuo, C. U. Pittman, Jr., W. M. Dai\* and X. J. Hao\*

*Tetrahedron: Asymmetry 12 (2001) 2613*



(1*S*,3*S*)-1-(2-Thiophyl)-3-(1-ethyl-1-hydroxypropyl)-2-methyl-1,2,3,4-tetrahydro-β-carboline

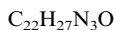
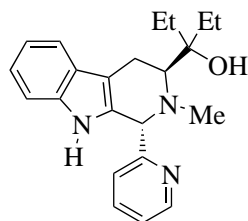
[α]<sub>D</sub> +87.7 (c 1.55, CHCl<sub>3</sub>)

Source of chirality: L-*N*-methyltryptophan

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

H. J. Zhu,\* B. T. Zhao, G. Y. Zuo, C. U. Pittman, Jr., W. M. Dai\* and X. J. Hao\*

*Tetrahedron: Asymmetry 12 (2001) 2613*



(1*S*,3*S*)-1-(2-Pyridyl)-3-(1-ethyl-1-hydroxypropyl)-2-methyl-1,2,3,4-tetrahydro-β-carboline

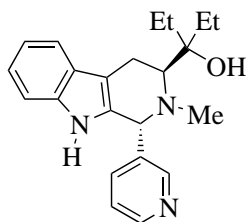
[α]<sub>D</sub> -189.8 (c 1.03, CHCl<sub>3</sub>)

Source of chirality: L-*N*-methyltryptophan

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

H. J. Zhu,\* B. T. Zhao, G. Y. Zuo, C. U. Pittman, Jr., W. M. Dai\*  
and X. J. Hao\*

*Tetrahedron: Asymmetry* 12 (2001) 2613



C<sub>22</sub>H<sub>27</sub>N<sub>3</sub>O

(1*S*,3*S*)-1-(3-Pyridyl)-3-(1-ethyl-1-hydroxypropyl)-2-methyl-1,2,3,4-tetrahydro-β-carboline

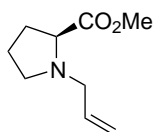
[α]<sub>D</sub><sup>25</sup> +26.5 (c 0.72, CHCl<sub>3</sub>)

Source of chirality: L-*N*-methyltryptophan

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

So Hyun Park, Hyun Jung Kang, Sangwon Ko, Soyoung Park  
and Sukbok Chang\*

*Tetrahedron: Asymmetry* 12 (2001) 2621



C<sub>9</sub>H<sub>15</sub>NO<sub>2</sub>

(2*S*)-Methyl *N*-(2-propenyl)pyrrolidine carboxylate

E.e. >95%

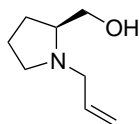
[α]<sub>D</sub><sup>25</sup> = -11.4 (c 1.60, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality: asymmetric synthesis

Absolute configuration: (2*S*)

So Hyun Park, Hyun Jung Kang, Sangwon Ko, Soyoung Park  
and Sukbok Chang\*

*Tetrahedron: Asymmetry* 12 (2001) 2621



C<sub>8</sub>H<sub>15</sub>NO

(2*S*)-*N*-(2-Propenyl)prolinol

E.e. >95%

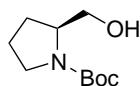
[α]<sub>D</sub><sup>25</sup> = -33.6 (c 1.60, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality: asymmetric synthesis

Absolute configuration: (2*S*)

So Hyun Park, Hyun Jung Kang, Sangwon Ko, Soyoung Park  
and Sukbok Chang\*

*Tetrahedron: Asymmetry* 12 (2001) 2621



C<sub>10</sub>H<sub>19</sub>NO<sub>3</sub>

(2*S*)-*N*-(*tert*-Butyloxycarbonyl)prolinol

E.e. >95%

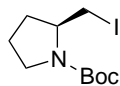
[α]<sub>D</sub><sup>25</sup> = -48.5 (c 1.68, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality: asymmetric synthesis

Absolute configuration: (2*S*)

So Hyun Park, Hyun Jung Kang, Sangwon Ko, Soyoung Park and Sukbok Chang\*

*Tetrahedron: Asymmetry 12 (2001) 2621*



(2S)-2-Iodomethyl-N-(tert-butyloxycarbonyl)pyrrolidine

E.e. >95%

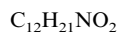
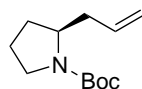
$[\alpha]_D^{25} = -32.8$  (c 1.46,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: (2S)

So Hyun Park, Hyun Jung Kang, Sangwon Ko, Soyoung Park and Sukbok Chang\*

*Tetrahedron: Asymmetry 12 (2001) 2621*



(2S)-N-(tert-Butyloxycarbonyl)-2-(2-propenyl)pyrrolidine

E.e. >95%

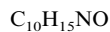
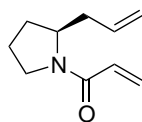
$[\alpha]_D^{25} = -32.4$  (c 1.56,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: (2S)

So Hyun Park, Hyun Jung Kang, Sangwon Ko, Soyoung Park and Sukbok Chang\*

*Tetrahedron: Asymmetry 12 (2001) 2621*



(2S)-1-Acryloyl-2-(2-propenyl)pyrrolidine

E.e. >95%

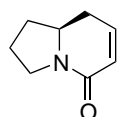
$[\alpha]_D^{25} = -42.4$  (c 1.54,  $CH_2Cl_2$ )

Source of chirality: asymmetric synthesis

Absolute configuration: (2S)

So Hyun Park, Hyun Jung Kang, Sangwon Ko, Soyoung Park and Sukbok Chang\*

*Tetrahedron: Asymmetry 12 (2001) 2621*



(9S)- $\Delta^{6,7}$ -Indolizidin-5-one

E.e. >95%

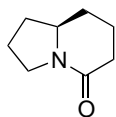
$[\alpha]_D^{25} = +129.2$  (c 0.97,  $CH_2Cl_2$ )

Source of chirality: asymmetric synthesis

Absolute configuration: (9S)

So Hyun Park, Hyun Jung Kang, Sangwon Ko, Soyoung Park and Sukbok Chang\*

*Tetrahedron: Asymmetry 12 (2001) 2621*



C<sub>8</sub>H<sub>13</sub>NO

(9*R*)-Indolizidin-5-one

E.e. >99%

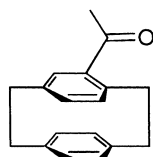
[ $\alpha$ ]<sub>D</sub><sup>25</sup> = -6.6 (*c* 0.40, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality: asymmetric synthesis

Absolute configuration: (9*R*)

Philippe Dorizon, Catherine Martin, Jean-Claude Daran, Jean-Claude Fiaud and Henri B. Kagan\*

*Tetrahedron: Asymmetry 12 (2001) 2625*



C<sub>18</sub>H<sub>18</sub>O

(*S*<sub>p</sub>)-4-Acetyl[2.2]paracyclophane

E.e. >99%

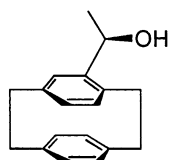
[ $\alpha$ ]<sub>D</sub> = +65 (*c* = 0.8, CHCl<sub>3</sub>)

Source of chirality: kinetic resolution

Absolute configuration: *S*<sub>p</sub>

Philippe Dorizon, Catherine Martin, Jean-Claude Daran, Jean-Claude Fiaud and Henri B. Kagan\*

*Tetrahedron: Asymmetry 12 (2001) 2625*



C<sub>18</sub>H<sub>20</sub>O

(*R*,*S*<sub>p</sub>)-4-Acetyl[2.2]paracyclophane

E.e. >99%

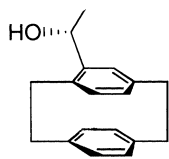
[ $\alpha$ ]<sub>D</sub> = +40 (*c* = 1.35, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*,*S*<sub>p</sub>)

Philippe Dorizon, Catherine Martin, Jean-Claude Daran, Jean-Claude Fiaud and Henri B. Kagan\*

*Tetrahedron: Asymmetry 12 (2001) 2625*



C<sub>18</sub>H<sub>20</sub>O

(*R*,*R*<sub>p</sub>)-4-Acetyl[2.2]paracyclophane

E.e. = 75.8%

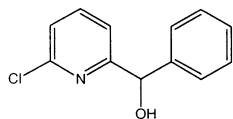
[ $\alpha$ ]<sub>D</sub> = -110.4 (*c* = 1.35, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*,*R*<sub>p</sub>)

Yves Fort,\* Philippe Gros and Alain L. Rodriguez

*Tetrahedron: Asymmetry 12 (2001) 2631*



$C_{12}H_{10}ClNO$

6-Chloro-2-pyridyl-phenylmethanol

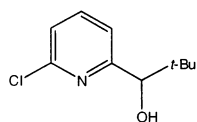
E.e. 58%

$[\alpha]_D^{20} = +91.6$  (c 1.98,  $CHCl_3$ )

Source of chirality: enantioselective functionalisation

Yves Fort,\* Philippe Gros and Alain L. Rodriguez

*Tetrahedron: Asymmetry 12 (2001) 2631*



$C_{10}H_{14}ClNO$

1-(6-Chloro-2-pyridyl)-2,2-dimethyl-1-propanol

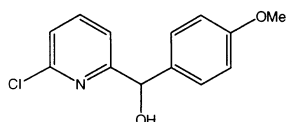
E.e. 35%

$[\alpha]_D^{20} = +7.1$  (c 1.11,  $CHCl_3$ )

Source of chirality: enantioselective functionalisation

Yves Fort,\* Philippe Gros and Alain L. Rodriguez

*Tetrahedron: Asymmetry 12 (2001) 2631*



$C_{13}H_{12}ClNO_2$

6-Chloro-2-pyridyl-4-methoxyphenylmethanol

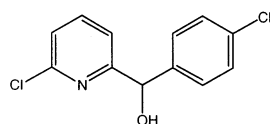
E.e. 45%

$[\alpha]_D^{20} = +80.2$  (c 1.50,  $CHCl_3$ )

Source of chirality: enantioselective functionalisation

Yves Fort,\* Philippe Gros and Alain L. Rodriguez

*Tetrahedron: Asymmetry 12 (2001) 2631*



$C_{13}H_9Cl_2NO$

4-Chlorophenyl-6-chloro-2-pyridylmethanol

E.e. 23%

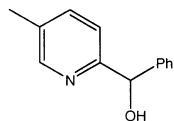
$[\alpha]_D^{20} = +37.9$  (c 0.98,  $CHCl_3$ )

Source of chirality: enantioselective functionalisation



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*Tetrahedron: Asymmetry 12 (2001) 2631*



$C_{13}H_{13}NO$

5-Methyl-2-pyridyl-phenylmethanol

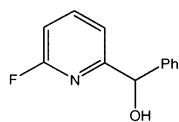
E.e. 39%

$[\alpha]_D^{20} = +56.4$  (c 1.41,  $CHCl_3$ )

Source of chirality: enantioselective functionalisation

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*Tetrahedron: Asymmetry 12 (2001) 2631*



$C_{12}H_{10}FNO$

6-Fluoro-2-pyridyl-phenylmethanol

E.e. 30%

$[\alpha]_D^{20} = +37.1$  (c 1.01,  $CHCl_3$ )

Source of chirality: enantioselective functionalisation