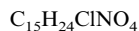
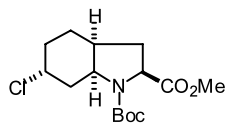


Nativitat Valls,\* Mercè Vallribera, Mercè Font-Bardía, Xavier Solans and Josep Bonjoch\*

*Tetrahedron: Asymmetry 14 (2003) 1241*



(2*S*,3*aS*,6*R*,7*aS*)-Methyl 1-(*tert*-Butoxycarbonyl)-6-chlorooctahydroindole-2-carboxylate

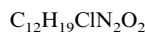
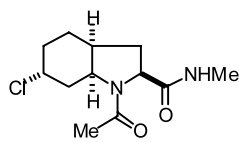
$$[\alpha]_{\text{D}}^{22} = -29.1 \text{ (} c \text{ 0.3, CHCl}_3\text{)}$$

Source of chirality: commercially available L-Tyrosine

Absolute configuration: 2*S*,3*aS*,6*R*,7*aS*

Nativitat Valls,\* Mercè Vallribera, Mercè Font-Bardía, Xavier Solans and Josep Bonjoch\*

*Tetrahedron: Asymmetry 14 (2003) 1241*



(2*S*,3*aS*,6*R*,7*aS*)-1-Acetyl-6-chloro-*N*-methyloctahydroindole-2-carboxamide

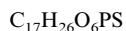
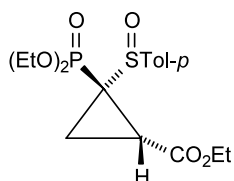
$$[\alpha]_{\text{D}}^{22} = -97.6 \text{ (} c \text{ 0.7, CHCl}_3\text{)}$$

Source of chirality: commercially available L-Tyrosine

Absolute configuration: 2*S*,3*aS*,6*R*,7*aS*

Wanda H. Midura, Jerzy A. Krysiak and Marian Mikołajczyk\*

*Tetrahedron: Asymmetry 14 (2003) 1245*



(*S*<sub>S</sub>,1*S*,2*S*)-(1-Diethoxyphosphoryl-2-ethoxycarbonyl)cyclopropyl *p*-tolyl sulfoxide

Ee = 100%

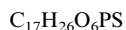
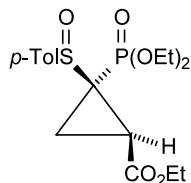
$$[\alpha]_{\text{D}}^{20} = +39.0 \text{ (} c \text{ 0.2, Me}_2\text{CO)}$$

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*<sub>S</sub>,1*S*,2*S*)

Wanda H. Midura, Jerzy A. Krysiak and Marian Mikołajczyk\*

*Tetrahedron: Asymmetry 14 (2003) 1245*



(*S*<sub>S</sub>,1*R*,2*R*)-(1-Diethoxyphosphoryl-2-ethoxycarbonyl)cyclopropyl *p*-tolyl sulfoxide

Ee = 100%

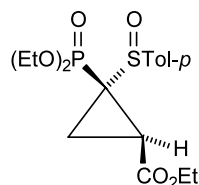
$$[\alpha]_{\text{D}}^{20} = +137.0 \text{ (} c \text{ 0.3, Me}_2\text{CO)}$$

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*<sub>S</sub>,1*R*,2*R*)

Wanda H. Midura, Jerzy A. Krysiak and Marian Mikołajczyk\*

*Tetrahedron: Asymmetry 14 (2003) 1245*



$C_{17}H_{26}O_6PS$

(*S,S,1S,2R*)-(1-Diethoxyphosphoryl-2-ethoxycarbonyl)cyclopropyl *p*-tolyl sulfoxide

Ee = 100%

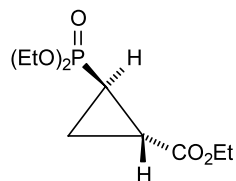
$[\alpha]_D^{20} = +94.0$  (*c* 0.21, Me<sub>2</sub>CO)

Source of chirality: asymmetric synthesis

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

Wanda H. Midura, Jerzy A. Krysiak and Marian Mikołajczyk\*

*Tetrahedron: Asymmetry 14 (2003) 1245*



$C_{10}H_{20}O_5P$

(*1R,2S*)-1-Diethoxyphosphoryl-2-ethoxycarbonylcyclopropane

Ee = 100%

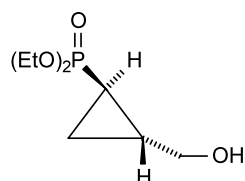
$[\alpha]_D^{20} = -26.0$  (*c* 0.23, Me<sub>2</sub>CO)

Source of chirality: asymmetric synthesis

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

Wanda H. Midura, Jerzy A. Krysiak and Marian Mikołajczyk\*

*Tetrahedron: Asymmetry 14 (2003) 1245*



$C_8H_{17}O_4P$

(*1R,2S*)-1-Diethoxyphosphoryl-2-hydroxymethylcyclopropane

Ee = 100%

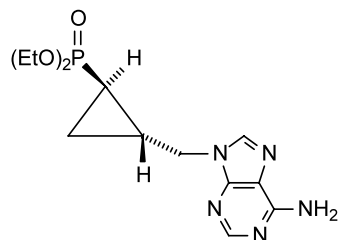
$[\alpha]_D^{20} = -24.0$  (*c* 0.19, Me<sub>2</sub>CO)

Source of chirality: asymmetric synthesis

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

Wanda H. Midura, Jerzy A. Krysiak and Marian Mikołajczyk\*

*Tetrahedron: Asymmetry 14 (2003) 1245*



$C_{13}H_{21}N_5O_3P$

(*1R,2S*)-1-Diethoxyphosphoryl-2-[adenin-9-yl]methylcyclopropane

Ee = 100%

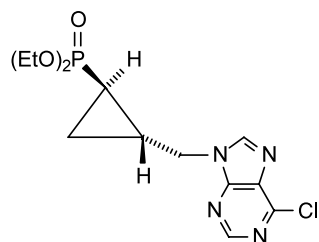
$[\alpha]_D^{20} = -8.2$  (*c* 0.3, Me<sub>2</sub>CO)

Source of chirality: asymmetric synthesis

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

Wanda H. Midura, Jerzy A. Krysiak and Marian Mikołajczyk\*

*Tetrahedron: Asymmetry 14 (2003) 1245*



$C_{13}H_{19}ClN_4O_3P$

(1*R*,2*S*)-1-Diethoxyphosphoryl-2-[6-chloropurin-9-yl]methylcyclopropane

Ee = 100%

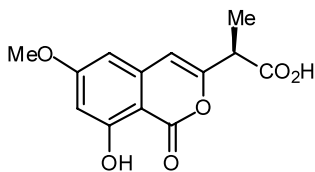
$[\alpha]_D^{20} = -2.2$  (*c* 0.23, Me<sub>2</sub>CO)

Source of chirality: asymmetric synthesis

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

Naoki Kanoh, Ayumi Tomatsu, Tomoyuki Nishikawa, Mitsuaki Ide,  
Toshio Tsuchida, Kunio Isshiki and Masaya Nakata\*

*Tetrahedron: Asymmetry 14 (2003) 1251*



$C_{13}H_{12}O_6$

(2*R*)-2-(8-Hydroxy-6-methoxy-1-oxo-1*H*-2-benzopyran-3-yl)propionic acid

E.e. 94%

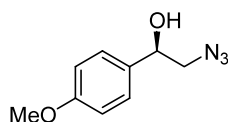
$[\alpha]_D^{22} = -26.4$  (*c* 0.50, MeOH)

Source of chirality: diastereoselective addition of  
(*R*)-pantolactone to ketene

Absolute configuration: 2*R*

Eugênia Cristina Souza Brenelli\* and Jane Luiza Nogueira Fernandes

*Tetrahedron: Asymmetry 14 (2003) 1255*



$C_9H_{11}N_3O_2$

(1*R*)-2-Azido-1-(4-methoxyphenyl)ethanol

E.e. 61%

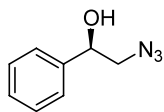
$[\alpha]_D^{25} = -30.8$  (*c* 1.3, CHCl<sub>3</sub>)

Source of chirality: enzymatic resolution

Absolute configuration: *R*

Eugênia Cristina Souza Brenelli\* and Jane Luiza Nogueira Fernandes

*Tetrahedron: Asymmetry 14 (2003) 1255*



$C_8H_9N_3O$

(1*R*)-2-Azido-1-phenylethanol

E.e. 84%

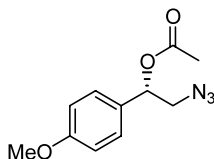
$[\alpha]_D^{25} = -66.3$  (*c* 0.82, CHCl<sub>3</sub>)

Source of chirality: enzymatic resolution

Absolute configuration: *R*

Eugênia Cristina Souza Brenelli\* and Jane Luiza Nogueira Fernandes

*Tetrahedron: Asymmetry 14 (2003) 1255*



$C_{11}H_{13}N_3O_3$

(1*S*)-2-Azido-1-(4-methoxyphenyl)ethyl acetate

E.e. >95%

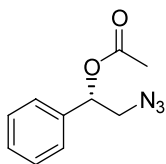
$[\alpha]_D^{25} = +78.6$  (c 0.98,  $CHCl_3$ )

Source of chirality: enzymatic resolution

Absolute configuration: *S*

Eugênia Cristina Souza Brenelli\* and Jane Luiza Nogueira Fernandes

*Tetrahedron: Asymmetry 14 (2003) 1255*



$C_{10}H_{11}N_3O_2$

(1*S*)-2-Azido-1-phenylethyl acetate

E.e. 85%

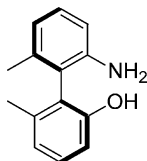
$[\alpha]_D^{25} = +50.6$  (c 0.83,  $CHCl_3$ )

Source of chirality: enzymatic resolution

Absolute configuration: *S*

Yuxue Liang, Shuang Gao, Huihui Wan, Junwei Wang, Huilin Chen,  
Zhuo Zheng and Xinqun Hu\*

*Tetrahedron: Asymmetry 14 (2003) 1267*



$C_{14}H_{15}NO$

(*S*)-(-)-2-Amino-2'-hydroxy-6,6'-dimethyl-1,1'-biphenyl

Ee >99%

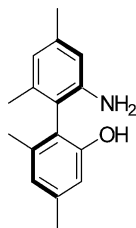
$[\alpha]_D^{24} = -74.7$  (c 0.5,  $CHCl_3$ )

Source of chirality: resolution

Absolute configuration: *S*

Yuxue Liang, Shuang Gao, Huihui Wan, Junwei Wang, Huilin Chen,  
Zhuo Zheng and Xinqun Hu\*

*Tetrahedron: Asymmetry 14 (2003) 1267*



$C_{16}H_{19}NO$

(*R*)-(+)-2-Amino-2'-hydroxy-4,4',6,6'-tetramethyl-1,1'-biphenyl

Ee >99%

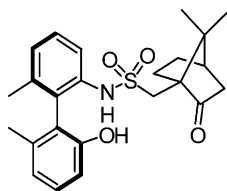
$[\alpha]_D^{24} = 59.5$  (c 0.5,  $CHCl_3$ )

Source of chirality: resolution

Absolute configuration: *R*

Yuxue Liang, Shuang Gao, Huihui Wan, Junwei Wang, Huilin Chen,  
Zhuo Zheng and Xinquan Hu\*

*Tetrahedron: Asymmetry 14 (2003) 1267*



$C_{24}H_{29}NO_4S$

(-)-(S)-2-[(D)-10-Camphorsulfonyl amido]-2'-hydroxy-6,6'-dimethyl-1,1'-biphenyl

Ee >99%

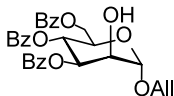
$[\alpha]_D^{25} -14.5$  (c 0.5,  $CHCl_3$ )

Source of chirality: synthesized

Absolute configuration: S

Ying Xing and Jun Ning\*

*Tetrahedron: Asymmetry 14 (2003) 1275*



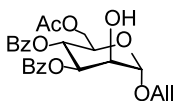
$C_{30}H_{28}O_9$

Allyl 3,4,6-tri-O-benzoyl-α-D-mannopyranoside

$[\alpha]_D -15.1$  (c 1.0,  $CHCl_3$ )

Ying Xing and Jun Ning\*

*Tetrahedron: Asymmetry 14 (2003) 1275*



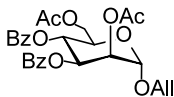
$C_{25}H_{26}O_9$

Allyl 6-O-acetyl-3,4-di-O-benzoyl-α-D-mannopyranoside

$[\alpha]_D -13.4$  (c 1.0,  $CHCl_3$ )

Ying Xing and Jun Ning\*

*Tetrahedron: Asymmetry 14 (2003) 1275*



$C_{27}H_{28}O_{10}$

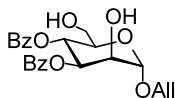
Allyl 2,6-di-O-acetyl-3,4-di-O-benzoyl-α-D-mannopyranoside

$[\alpha]_D -17.5$  (c 0.5,  $CHCl_3$ )

Ying Xing and Jun Ning\*

*Tetrahedron: Asymmetry 14 (2003) 1275*

$[\alpha]_D -18.6$  (c 2.0, CHCl<sub>3</sub>)



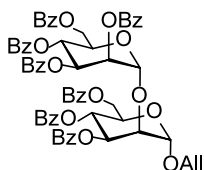
C<sub>23</sub>H<sub>24</sub>O<sub>8</sub>

Allyl 3,4-di-*O*-benzoyl- $\alpha$ -D-mannopyranoside

Ying Xing and Jun Ning\*

*Tetrahedron: Asymmetry 14 (2003) 1275*

$[\alpha]_D -37.9$  (c 1.0, CHCl<sub>3</sub>)



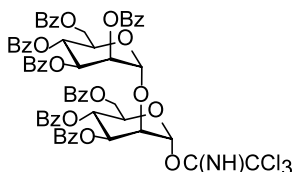
C<sub>64</sub>H<sub>54</sub>O<sub>18</sub>

Allyl 2,3,4,6-tetra-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1→2)-3,4,6-tri-*O*-benzoyl- $\alpha$ -D-mannopyranoside

Ying Xing and Jun Ning\*

*Tetrahedron: Asymmetry 14 (2003) 1275*

$[\alpha]_D -24.5$  (c 1.0, CHCl<sub>3</sub>)



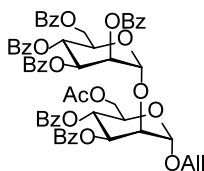
C<sub>63</sub>H<sub>50</sub>Cl<sub>3</sub>NO<sub>18</sub>

2,3,4,6-Tetra-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1→2)-3,4,6-tri-*O*-benzoyl- $\alpha$ -D-mannopyranosyl trichloroacetimidate

Ying Xing and Jun Ning\*

*Tetrahedron: Asymmetry 14 (2003) 1275*

$[\alpha]_D -45.3$  (c 1.0, CHCl<sub>3</sub>)

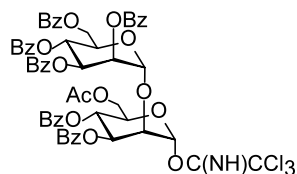


C<sub>59</sub>H<sub>52</sub>O<sub>18</sub>

Allyl 2,3,4,6-tetra-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1→2)-6-*O*-acetyl-3,4-di-*O*-benzoyl- $\alpha$ -D-mannopyranoside

Ying Xing and Jun Ning\*

*Tetrahedron: Asymmetry 14 (2003) 1275*



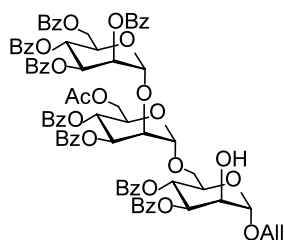
$[\alpha]_D -43.7$  (c 1.0, CHCl<sub>3</sub>)

C<sub>58</sub>H<sub>48</sub>Cl<sub>3</sub>NO<sub>18</sub>

2,3,4,6-Tetra-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1→2)-6-*O*-acetyl-3,4-di-*O*-benzoyl- $\alpha$ -D-mannopyranosyl trichloroacetimidate

Ying Xing and Jun Ning\*

*Tetrahedron: Asymmetry 14 (2003) 1275*



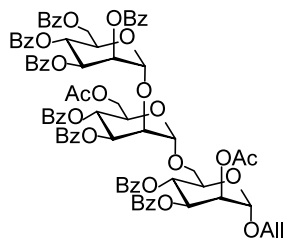
$[\alpha]_D -33.2$  (c 1.0, CHCl<sub>3</sub>)

C<sub>79</sub>H<sub>70</sub>O<sub>25</sub>

2,3,4,6-Tetra-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1→2)-6-*O*-acetyl-3,4-di-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1→6)-3,4-di-*O*-benzoyl- $\alpha$ -D-mannopyranoside

Ying Xing and Jun Ning\*

*Tetrahedron: Asymmetry 14 (2003) 1275*



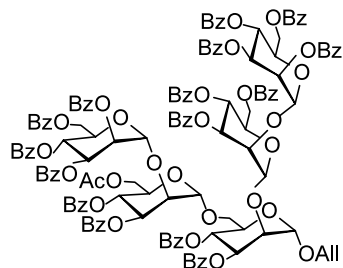
$[\alpha]_D -29.3$  (c 1.5, CHCl<sub>3</sub>)

C<sub>81</sub>H<sub>72</sub>O<sub>26</sub>

2,3,4,6-Tetra-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1→2)-6-*O*-acetyl-3,4-di-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1→6)-2-*O*-acetyl-3,4-di-*O*-benzoyl- $\alpha$ -D-mannopyranoside

Ying Xing and Jun Ning\*

*Tetrahedron: Asymmetry 14 (2003) 1275*



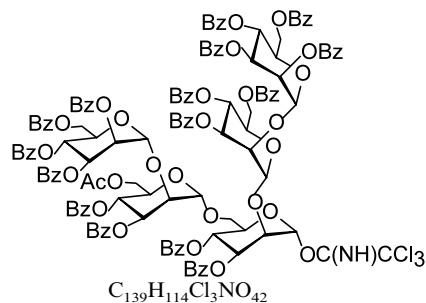
$[\alpha]_D -45.2$  (c 1.0, CHCl<sub>3</sub>)

C<sub>140</sub>H<sub>118</sub>O<sub>42</sub>

Allyl 2,3,4,6-tetra-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1→2)-6-*O*-acetyl-3,4-di-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1→6)-[2,3,4,6-tetra-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1→2)-3,4,6-tri-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1→2)]-3,4-di-*O*-benzoyl- $\alpha$ -D-mannopyranoside

Ying Xing and Jun Ning\*

*Tetrahedron: Asymmetry* 14 (2003) 1275

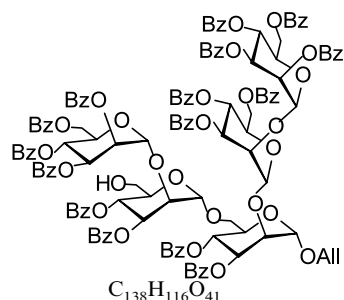


$[\alpha]_D -35.0$  (c 1.0,  $CHCl_3$ )

2,3,4,6-Tetra-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)-6-*O*-acetyl-3,4-di-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 6)-[2,3,4,6-tetra-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)-3,4,6-tri-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)]-3,4-di-*O*-benzoyl- $\alpha$ -D-mannopyranosyl trichloroacetimidate

Ying Xing and Jun Ning\*

*Tetrahedron: Asymmetry* 14 (2003) 1275

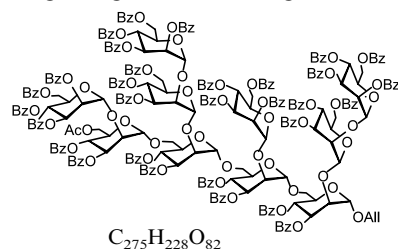


$[\alpha]_D -62.7$  (c 1.0,  $CHCl_3$ )

Allyl 2,3,4,6-tetra-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)-3,4-di-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 6)-[2,3,4,6-tetra-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)-3,4,6-tri-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)]-3,4-di-*O*-benzoyl- $\alpha$ -D-mannopyranoside

Ying Xing and Jun Ning\*

*Tetrahedron: Asymmetry* 14 (2003) 1275

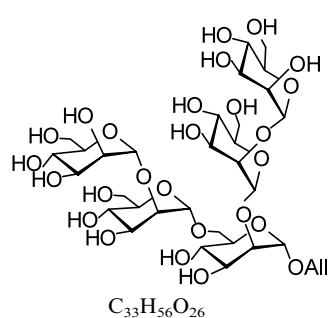


$[\alpha]_D -33.7$  (c 1.0,  $CHCl_3$ )

Allyl 2,3,4,6-tetra-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)-6-*O*-acetyl-3,4-di-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 6)-[2,3,4,6-tetra-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)-3,4,6-tri-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)]-3,4-di-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 6)-[2,3,4,6-tetra-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)]-3,4,6-tri-*O*-benzoyl- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)]-3,4-di-*O*-benzoyl- $\alpha$ -D-mannopyranoside

Ying Xing and Jun Ning\*

*Tetrahedron: Asymmetry* 14 (2003) 1275



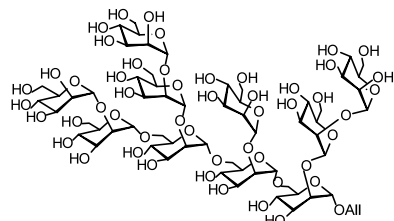
$[\alpha]_D +12.3$  (c 1.0,  $H_2O$ )

Allyl  $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 6)-[ $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)]- $\alpha$ -D-mannopyranoside



Ying Xing and Jun Ning\*

*Tetrahedron: Asymmetry 14 (2003) 1275*



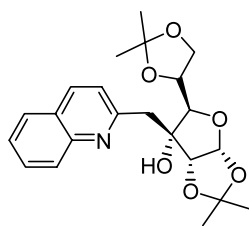
$[\alpha]_D^{20} +35.8$  (*c* 1.0, H<sub>2</sub>O)

C<sub>63</sub>H<sub>106</sub>O<sub>51</sub>

Allyl  $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 6)-[ $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)]- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 6)-[ $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)]- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 6)-[ $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)]- $\alpha$ -D-mannopyranoside

Hanmin Huang, Zhuo Zheng,\* Huilin Chen,\*  
Changmin Bai and Junwei Wang

*Tetrahedron: Asymmetry 14 (2003) 1285*



C<sub>22</sub>H<sub>27</sub>NO<sub>6</sub>

1,2:5,6-Di-*O*-isopropylidene-3-quinolin-2-ylmethyl- $\alpha$ -D-glucofuranose

E.e.  $\geq 99\%$

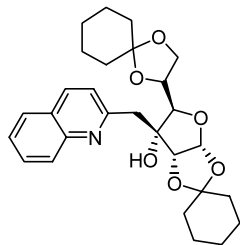
$[\alpha]_D^{25} = +53.3$  (*c* 0.41, CHCl<sub>3</sub>)

Source of chirality: D-glucose and stereoselective synthesis

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

Hanmin Huang, Zhuo Zheng,\* Huilin Chen,\*  
Changmin Bai and Junwei Wang

*Tetrahedron: Asymmetry 14 (2003) 1285*



C<sub>28</sub>H<sub>35</sub>NO<sub>6</sub>

1,2:5,6-Di-*O*-cyclohexylidene-3-quinolin-2-ylmethyl- $\alpha$ -D-glucofuranose

E.e.  $\geq 99\%$

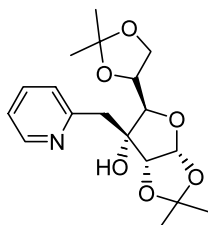
$[\alpha]_D^{25} = +61.6$  (*c* 0.57, CHCl<sub>3</sub>)

Source of chirality: D-glucose and stereoselective synthesis

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

Hanmin Huang, Zhuo Zheng,\* Huilin Chen,\*  
Changmin Bai and Junwei Wang

*Tetrahedron: Asymmetry 14 (2003) 1285*



C<sub>18</sub>H<sub>25</sub>NO<sub>6</sub>

1,2:5,6-Di-*O*-isopropylidene-3-pyridin-2-ylmethyl- $\alpha$ -D-glucofuranose

E.e.  $\geq 99\%$

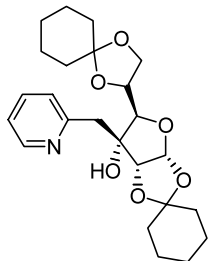
$[\alpha]_D^{25} = +34.7$  (*c* 0.48, CHCl<sub>3</sub>)

Source of chirality: D-glucose and stereoselective synthesis

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

Hanmin Huang, Zhuo Zheng,\* Huilin Chen,\*  
Changmin Bai and Junwei Wang

*Tetrahedron: Asymmetry 14 (2003) 1285*



C<sub>24</sub>H<sub>33</sub>NO<sub>6</sub>

1,2:5,6-Di-O-cyclohexylidene-3-pyridin-2-ylmethyl-α-D-glucofuranose

E.e. ≥ 99%

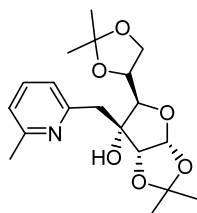
[α]<sub>D</sub><sup>25</sup> = +42.0 (c 0.67, CHCl<sub>3</sub>)

Source of chirality: D-glucose and stereoselective synthesis

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

Hanmin Huang, Zhuo Zheng,\* Huilin Chen,\*  
Changmin Bai and Junwei Wang

*Tetrahedron: Asymmetry 14 (2003) 1285*



C<sub>19</sub>H<sub>27</sub>NO<sub>6</sub>

1,2:5,6-Di-O-isopropylidene-3-(6-methylpyridin-2-ylmethyl)-α-D-glucofuranose

E.e. ≥ 99%

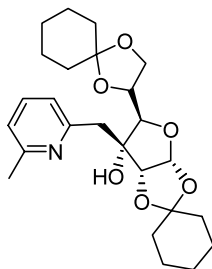
[α]<sub>D</sub><sup>25</sup> = +22.4 (c 0.61, CHCl<sub>3</sub>)

Source of chirality: D-glucose and stereoselective synthesis

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

Hanmin Huang, Zhuo Zheng,\* Huilin Chen,\*  
Changmin Bai and Junwei Wang

*Tetrahedron: Asymmetry 14 (2003) 1285*



C<sub>25</sub>H<sub>35</sub>NO<sub>6</sub>

1,2:5,6-Di-O-cyclohexylidene-3-(6-methylpyridin-2-ylmethyl)-α-D-glucofuranose

E.e. ≥ 99%

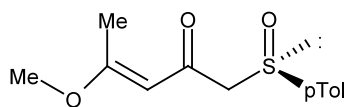
[α]<sub>D</sub><sup>25</sup> = +29.4 (c 0.64, CHCl<sub>3</sub>)

Source of chirality: D-glucose and stereoselective synthesis

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

Gilles Hanquet, Xavier J. Salom-Roig, Laurence Gressot-Kempf,  
Steve Lanners and Guy Solladié\*

*Tetrahedron: Asymmetry 14 (2003) 1291*



C<sub>8</sub>H<sub>16</sub>O<sub>3</sub>S

(+)-(E,R<sub>S</sub>)-1-(p-Tolylsulfinyl)-4-methoxy-3-butene-2-one

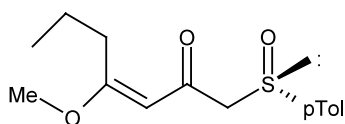
[α]<sub>D</sub><sup>20</sup> = +262 (c 0.8 CHCl<sub>3</sub>)

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

Absolute configuration: R<sub>S</sub>

Gilles Hanquet, Xavier J. Salom-Roig, Laurence Gressot-Kempf, Steve Lanners and Guy Solladié\*

*Tetrahedron: Asymmetry 14 (2003) 1291*



$C_{10}H_{20}O_3S$

(-)-(E,S<sub>8</sub>)-1-(p-Tolylsulfinyl)-4-methoxy-3-hexene-2-one

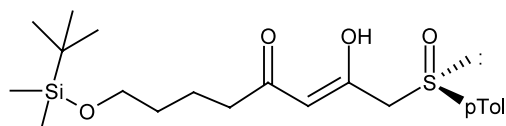
$[\alpha]_D^{20} = -216$  (c 1.14, CHCl<sub>3</sub>)

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

Absolute configuration: S<sub>8</sub>

Gilles Hanquet, Xavier J. Salom-Roig, Laurence Gressot-Kempf, Steve Lanners and Guy Solladié\*

*Tetrahedron: Asymmetry 14 (2003) 1291*



$C_{16}H_{34}O_4SSi$

(+)-(R<sub>8</sub>)-1-(p-Tolylsulfinyl)-2,4-dioxo-8-(tert-butyl dimethylsilyloxy)octane

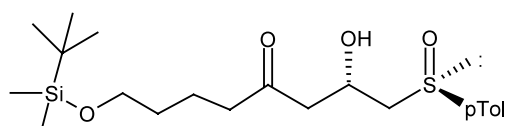
$[\alpha]_D^{20} = +167$  (c 1, CHCl<sub>3</sub>)

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

Absolute configuration: R<sub>8</sub>

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*Tetrahedron: Asymmetry 14 (2003) 1291*



$C_{16}H_{36}O_4SSi$

(+)-(R<sub>8</sub>,2S)-1-(p-Tolylsulfinyl)-8-(tert-butyl dimethylsilyloxy)-2-hydroxy-4-pentanone

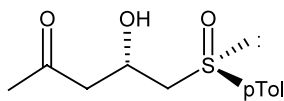
$[\alpha]_D^{20} = +87$  (c 1.15, CHCl<sub>3</sub>)

Source of chirality: diastereoselective reduction

Absolute configuration: R<sub>8</sub>,2S

Gilles Hanquet, Xavier J. Salom-Roig, Laurence Gressot-Kempf, Steve Lanners and Guy Solladié\*

*Tetrahedron: Asymmetry 14 (2003) 1291*



$C_7H_{16}O_3S$

(+)-(R<sub>8</sub>,2R)-1-(p-Tolylsulfinyl)-2-hydroxy-4-pentanone

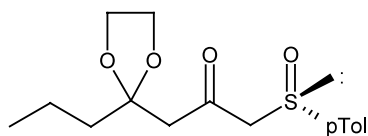
$[\alpha]_D^{20} = +240$  (c 2, acetone)

Source of chirality: diastereoselective reduction

Absolute configuration: R<sub>8</sub>,2S

Gilles Hanquet, Xavier J. Salom-Roig, Laurence Gressot-Kempf, Steve Lanners and Guy Solladié\*

*Tetrahedron: Asymmetry 14 (2003) 1291*



$C_{11}H_{22}O_4S$

(-)-(S<sub>5</sub>)-1-(*p*-Tolylsulfinyl)-4-(1,3-dioxolane)-2-oxo-heptane

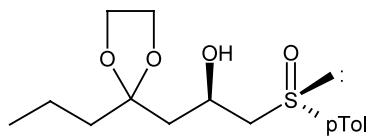
$[\alpha]_D^{20} = -167$  (*c* 1, acetone)

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

Absolute configuration: S<sub>5</sub>

Gilles Hanquet, Xavier J. Salom-Roig, Laurence Gressot-Kempf, Steve Lanners and Guy Solladié\*

*Tetrahedron: Asymmetry 14 (2003) 1291*



$C_{11}H_{24}O_4S$

(-)-(2*R*,S<sub>5</sub>)-1-(*p*-Tolylsulfinyl)-4-(1,3-dioxolane)-heptane-2-ol

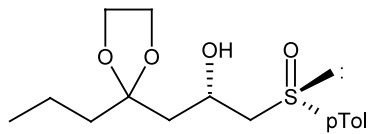
$[\alpha]_D^{20} = -236$  (*c* 1.2, acetone)

Source of chirality: diastereoselective reduction

Absolute configuration: S<sub>5</sub>,2*R*

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*Tetrahedron: Asymmetry 14 (2003) 1291*



$C_{11}H_{24}O_4S$

(-)-(2*S*,S<sub>5</sub>)-1-(*p*-Tolylsulfinyl)-4-(1,3-dioxolane)-heptane-2-ol

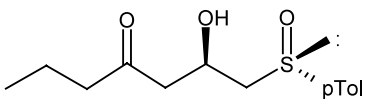
$[\alpha]_D^{20} = -44$  (*c* 0.5, acetone)

Source of chirality: diastereoselective reduction

Absolute configuration: S<sub>5</sub>,2*S*

Gilles Hanquet, Xavier J. Salom-Roig, Laurence Gressot-Kempf, Steve Lanners and Guy Solladié\*

*Tetrahedron: Asymmetry 14 (2003) 1291*



$C_9H_{20}O_3S$

(-)-(2*R*,S<sub>5</sub>)-1-(*p*-Tolylsulfinyl)-2-hydroxy-4-heptanone

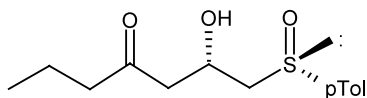
$[\alpha]_D^{20} = -222$  (*c* 1, acetone)

Source of chirality: diastereoselective reduction

Absolute configuration: S<sub>5</sub>,2*R*

Gilles Hanquet, Xavier J. Salom-Roig, Laurence Gressot-Kempf, Steve Lanners and Guy Solladié\*

*Tetrahedron: Asymmetry 14 (2003) 1291*



$C_9H_{20}O_3S$

(-)-(2*S*,*S*<sub>3</sub>)-1-(*p*-Tolylsulfinyl)-2-hydroxy-4-heptanone

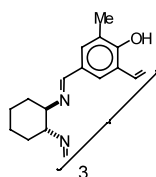
$[\alpha]_D^{20} = -184$  (*c* 1, acetone)

Source of chirality: diastereoselective reduction

Absolute configuration: *S*<sub>3</sub>,2*S*

M. Kwit and J. Gawronski\*

*Tetrahedron: Asymmetry 14 (2003) 1303*



$C_{45}H_{54}N_6O_3$

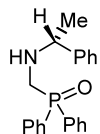
(2*R*,3*R*,11*R*,12*R*,20*R*,21*R*)-1,4,10,13,19,22-Hexaaza-(2,3:11,12:20,21)-tri(tetramethylene)-(6,8:15,17:24,26)-tri(1'-hydroxy-2'-methyl-1'-propen-3'yl)-2*H*,3*H*,11*H*,12*H*,20*H*,21*H*-(27)-annulene

$[\alpha]_D = -345$  (*c* 0.45,  $CHCl_3$ )

Source of chirality: *trans*-(1*R*,2*R*)-1,2-diaminocyclohexane

Axel Couture,\* Eric Deniau, Pierre Grandclaoudon and Stéphane Lebrun

*Tetrahedron: Asymmetry 14 (2003) 1309*



$C_{21}H_{22}NOP$

(1*R*)-*N*-Diphenylphosphinoylmethyl-*N*-1-phenylethylamine

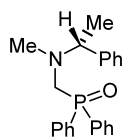
$[\alpha]_D^{20} = +21.0$  (*c* 1.0,  $CHCl_3$ );  $[\alpha]_D^{20} = +48.5$  (*c* 1.3, MeOH)

Source of chirality: (*R*)-(+)- $\alpha$ -methylbenzylamine

Absolute configuration: 1*R*

Axel Couture,\* Eric Deniau, Pierre Grandclaoudon and Stéphane Lebrun

*Tetrahedron: Asymmetry 14 (2003) 1309*



$C_{22}H_{24}NOP$

(1*R*)-*N*-Diphenylphosphinoylmethyl-*N*-methyl-*N*-1-phenylethylamine

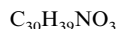
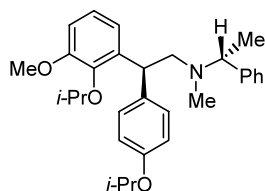
$[\alpha]_D^{20} = +10.5$  (*c* 1.6,  $CHCl_3$ );  $[\alpha]_D^{20} = +49.9$  (*c* 1.0, MeOH)

Source of chirality: (*R*)-(+)- $\alpha$ -methylbenzylamine

Absolute configuration: 1*R*

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and Stéphane Lebrun

*Tetrahedron: Asymmetry 14 (2003) 1309*



(1*R*,2*S*)-*N*-[2-((2-Isopropoxy-3-methoxy)phenyl)-4'-isopropoxyphenyl]ethyl-*N*-methyl-*N*-1-phenylethylamine

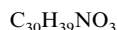
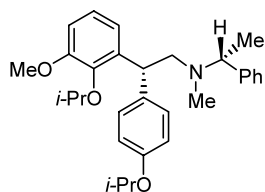
$[\alpha]_D^{20} = +77.6$  (*c* 1.02,  $CHCl_3$ )

Source of chirality: (*R*)-(+)- $\alpha$ -methylbenzylamine

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

Axel Couture,\* Eric Deniau, Pierre Grandclaudon  
and Stéphane Lebrun

*Tetrahedron: Asymmetry 14 (2003) 1309*



(1*R*,2*R*)-*N*-[2-((2-Isopropoxy-3-methoxy)phenyl)-4'-isopropoxyphenyl]ethyl-*N*-methyl-*N*-1-phenylethylamine

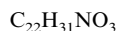
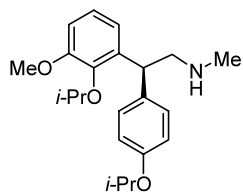
$[\alpha]_D^{20} = -74.8$  (*c* 1.23,  $CHCl_3$ )

Source of chirality: (*R*)-(+)- $\alpha$ -methylbenzylamine

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

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and Stéphane Lebrun

*Tetrahedron: Asymmetry 14 (2003) 1309*



(2*S*)-*N*-[2-((2-Isopropoxy-3-methoxy)phenyl)-4'-isopropoxyphenyl]ethyl-*N*-methylamine

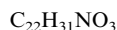
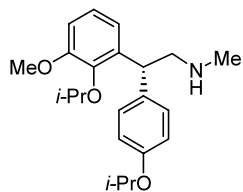
$[\alpha]_D^{20} = +55.4$  (*c* 1.01,  $CHCl_3$ )

Source of chirality: (*R*)-(+)- $\alpha$ -methylbenzylamine

Absolute configuration: 2*S*

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and Stéphane Lebrun

*Tetrahedron: Asymmetry 14 (2003) 1309*



(2*R*)-*N*-[2-((2-Isopropoxy-3-methoxy)phenyl)-4'-isopropoxyphenyl]ethyl-*N*-methylamine

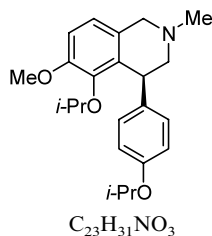
$[\alpha]_D^{20} = -55.3$  (*c* 0.94,  $CHCl_3$ )

Source of chirality: (*R*)-(+)- $\alpha$ -methylbenzylamine

Absolute configuration: 2*R*

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and Stéphane Lebrun

*Tetrahedron: Asymmetry 14 (2003) 1309*



(4*S*)-4-Isopropoxyphenyl-5-isopropoxy-6-methoxy-2-methyl-1,2,3,4-tetrahydroisoquinoline

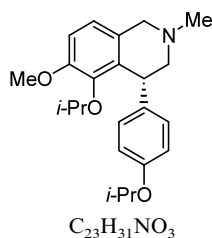
$[\alpha]_D^{20} = -3.4$  (*c* 0.76,  $CHCl_3$ )

Source of chirality: (*R*)-(+)- $\alpha$ -methylbenzylamine

Absolute configuration: 4*S*

Axel Couture,\* Eric Deniau, Pierre Grandclaudon  
and Stéphane Lebrun

*Tetrahedron: Asymmetry 14 (2003) 1309*



(4*R*)-4-Isopropoxyphenyl-5-isopropoxy-6-methoxy-2-methyl-1,2,3,4-tetrahydroisoquinoline

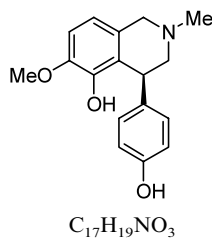
$[\alpha]_D^{20} = +3.4$  (*c* 0.80,  $CHCl_3$ )

Source of chirality: (*R*)-(+)- $\alpha$ -methylbenzylamine

Absolute configuration: 4*R*

Axel Couture,\* Eric Deniau, Pierre Grandclaudon  
and Stéphane Lebrun

*Tetrahedron: Asymmetry 14 (2003) 1309*



(4*S*)-4-Hydroxyphenyl-6-methoxy-2-methyl-1,2,3,4-tetrahydroisoquinolin-5-ol

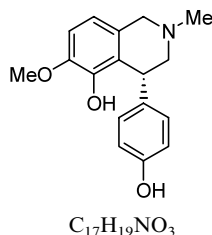
$[\alpha]_D^{20} = -25.6$  (*c* 0.5, MeOH)

Source of chirality: (*R*)-(+)- $\alpha$ -methylbenzylamine

Absolute configuration: 4*S*

Axel Couture,\* Eric Deniau, Pierre Grandclaudon  
and Stéphane Lebrun

*Tetrahedron: Asymmetry 14 (2003) 1309*



(4*R*)-4-Hydroxyphenyl-6-methoxy-2-methyl-1,2,3,4-tetrahydroisoquinolin-5-ol

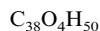
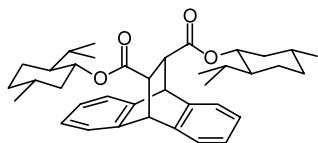
$[\alpha]_D^{20} = +25.5$  (*c* 0.5, MeOH)

Source of chirality: (*R*)-(+)- $\alpha$ -methylbenzylamine

Absolute configuration: 4*R*

Linda Thunberg and Stig Allenmark\*

*Tetrahedron: Asymmetry 14 (2003) 1317*



(11*S*,12*S*)-Dimenthylloxycarbonyl-9,10-dihydro-9,10-ethanoanthracene

D.e. = 98.8%

$[\alpha]_D^{20} = -29.3$  (*c* 2.0,  $CHCl_3$ )

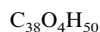
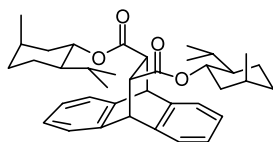
CD (acetonitrile):  $\lambda_{ext}$  (nm),  $\Delta\epsilon_{ext}$  ( $cm^2 \text{ mmol}^{-1}$ )  
230, +2.939; 206, +25.39; 194, -9.688

Source of chirality: (-)-menthol

Absolute configuration: (11*S*,12*S*)

Linda Thunberg and Stig Allenmark\*

*Tetrahedron: Asymmetry 14 (2003) 1317*



(11*R*,12*R*)-Diisomenthylloxycarbonyl-9,10-dihydro-9,10-ethanoanthracene

D.e. = 82.2%

$[\alpha]_D^{20} = -6.8$  (*c* 2.0,  $CHCl_3$ )

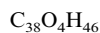
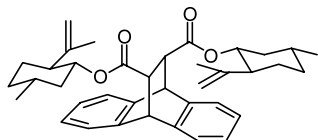
CD (acetonitrile):  $\lambda_{ext}$  (nm),  $\Delta\epsilon_{ext}$  ( $cm^2 \text{ mmol}^{-1}$ )  
230, -2.864; 206, -24.04; 194, +13.38

Source of chirality: (+)-isomenthol

Absolute configuration: (11*R*,12*R*)

Linda Thunberg and Stig Allenmark\*

*Tetrahedron: Asymmetry 14 (2003) 1317*



(11*S*,12*S*)-Diisopuleglyloxycarbonyl-9,10-dihydro-9,10-ethanoanthracene

D.e. = 95.4%

$[\alpha]_D^{20} = +3.3$  (*c* 2.1,  $CHCl_3$ )

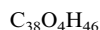
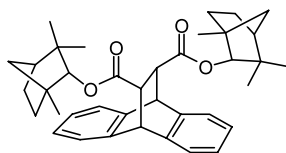
CD (acetonitrile):  $\lambda_{ext}$  (nm),  $\Delta\epsilon_{ext}$  ( $cm^2 \text{ mmol}^{-1}$ )  
299, +2.978; 207, +22.26; 194, -25.94

Source of chirality: (-)-isopulegol

Absolute configuration: (11*S*,12*S*)

Linda Thunberg and Stig Allenmark\*

*Tetrahedron: Asymmetry 14 (2003) 1317*



(11*S*,12*S*)-Difenchylloxycarbonyl-9,10-dihydro-9,10-ethanoanthracene

D.e. = 95.2%

$[\alpha]_D^{20} = +35.3$  (*c* 2.0,  $CHCl_3$ )

CD (acetonitrile):  $\lambda_{ext}$  (nm),  $\Delta\epsilon_{ext}$  ( $cm^2 \text{ mmol}^{-1}$ )  
230, +3.483; 207, +18.23; 194, -13.13

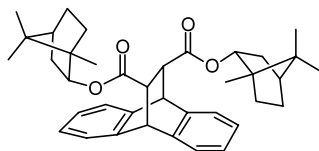
Source of chirality: (+)-fenchol

Absolute configuration: (11*S*,12*S*)



Linda Thunberg and Stig Allenmark\*

*Tetrahedron: Asymmetry 14 (2003) 1317*



$C_{38}O_4H_{46}$

(11*S*,12*S*)-Dibornylloxycarbonyl-9,10-dihydro-9,10-ethanoanthracene

D.e. = 85.9%

$[\alpha]_D^{20} = -8.7$  (*c* 2.0,  $CHCl_3$ )

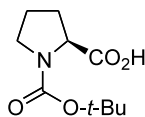
CD (acetonitrile):  $\lambda_{ext}$  (nm),  $\Delta\epsilon_{ext}$  ( $cm^2\text{ mmol}^{-1}$ )  
230, +2.915; 206, +25.99; 194, -12.70

Source of chirality: (-)-borneol

Absolute configuration: (11*S*,12*S*)

Masayuki Kurokawa, Takeyuki Shindo, Masumi Suzuki,  
Nobuyoshi Nakajima, Kohji Ishihara and Takeshi Sugai\*

*Tetrahedron: Asymmetry 14 (2003) 1323*



$C_{10}H_{17}NO_4$

(*S*)-1-*tert*-Butoxycarbonyl-2-pyrrolidinecarboxylic acid

E.e. >99.9%

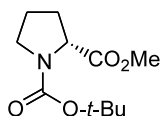
$[\alpha]_D^{20} = -60.3$  (*c* 2.02, AcOH)

Source of chirality: enzyme-catalyzed kinetic resolution

Absolute configuration: (*S*)

Masayuki Kurokawa, Takeyuki Shindo, Masumi Suzuki,  
Nobuyoshi Nakajima, Kohji Ishihara and Takeshi Sugai\*

*Tetrahedron: Asymmetry 14 (2003) 1323*



$C_{11}H_{19}NO_4$

Methyl (*R*)-1-*tert*-butoxycarbonyl-2-pyrrolidinecarboxylate

E.e. = 98.7%

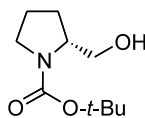
$[\alpha]_D^{20} = +63.6$  (*c* 1.55, MeOH)

Source of chirality: enzyme-catalyzed kinetic resolution

Absolute configuration: (*R*)

Masayuki Kurokawa, Takeyuki Shindo, Masumi Suzuki,  
Nobuyoshi Nakajima, Kohji Ishihara and Takeshi Sugai\*

*Tetrahedron: Asymmetry 14 (2003) 1323*



$C_{10}H_{19}NO_3$

(*R*)-1-*tert*-Butoxycarbonyl-2-hydroxymethylpyrrolidine

E.e. >99.9%

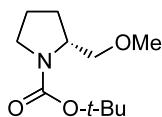
$[\alpha]_D^{20} = +54.4$  (*c* 1.02, MeOH)

Source of chirality: enzyme-catalyzed kinetic resolution

Absolute configuration: (*R*)

Masayuki Kurokawa, Takeyuki Shindo, Masumi Suzuki,  
Nobuyoshi Nakajima, Kohji Ishihara and Takeshi Sugai\*

*Tetrahedron: Asymmetry 14 (2003) 1323*



$C_{11}H_{21}NO_3$

(*R*)-1-*tert*-Butoxycarbonyl-2-methoxymethylpyrrolidine

E.e. >99.9%

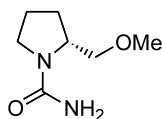
$[\alpha]_D^{19} +68.1$  (*c* 1.35, MeOH)

Source of chirality: enzyme-catalyzed kinetic resolution

Absolute configuration: (*R*)

Masayuki Kurokawa, Takeyuki Shindo, Masumi Suzuki,  
Nobuyoshi Nakajima, Kohji Ishihara and Takeshi Sugai\*

*Tetrahedron: Asymmetry 14 (2003) 1323*



$C_7H_{14}N_2O_2$

(*R*)-1-Carbamoyl-2-methoxymethylpyrrolidine

E.e. >99.9%

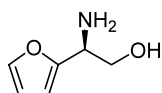
$[\alpha]_D^{22} +65.1$  (*c* 2.00, EtOH)

Source of chirality: enzyme-catalyzed kinetic resolution

Absolute configuration: (*R*)

Ayhan S. Demir,\* Özge Sesenoglu, Hilal Aksoy-Cam, Handan Kaya  
and Kenan Aydogan

*Tetrahedron: Asymmetry 14 (2003) 1335*



$C_6H_9NO_2$

(*S*)-2-Amino-2-(2-furyl)ethanol

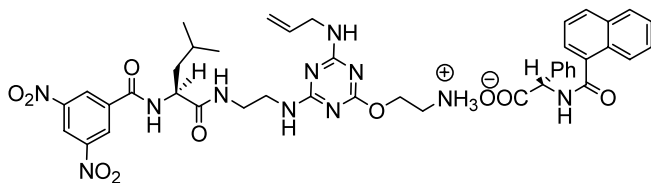
$[\alpha]_D^{20} = -7.4$  (*c* 0.8, MeOH)

Source of chirality: enantioselective reduction

Absolute configuration: *S*

Anna Iuliano, Cristina Lecci and Piero Salvadori\*

*Tetrahedron: Asymmetry 14 (2003) 1345*



$C_{42}H_{47}N_{11}O_{10}$

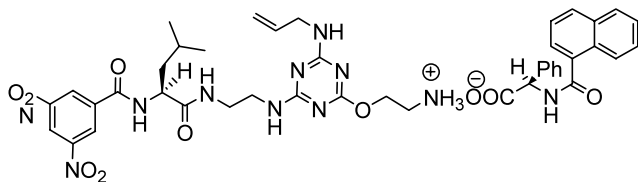
2-{4-Allylamino-6-[2-(*S*)-*N*-3,5-dinitrobenzoylaminoisobutylacetyl]-ethylamino-1,3,5-triazin-2-yloxy}ethylamonium  
(*S*)-*N*-(1-naphthoyl)aminophenylacetate

$[\alpha]_D^{24} = +38.4$  (*c* 1, THF)

Source of chirality: natural source

Anna Iuliano, Cristina Lecci and Piero Salvadori\*

*Tetrahedron: Asymmetry 14 (2003) 1345*



$[\alpha]_D^{25} = -13.6$  (*c* 1.1, THF)

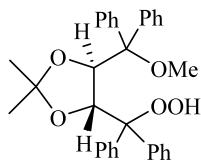
Source of chirality: natural source

$C_{42}H_{47}N_{11}O_{10}$

2-{4-Allylamino-6-[2-(*S*)-*N*-3,5-dinitrobenzoylaminoisobutylacetyl]-ethylamino-1,3,5-triazin-2-yloxy}ethylamonium  
(*R*)-*N*-(1-naphthyl)aminophenylacetate

Waldemar Adam, Albert K. Beck, Arkadius Pichota,  
Chantu R. Saha-Möllner, Dieter Seebach, Nadine Vogl\* and Rui Zhang

*Tetrahedron: Asymmetry 14 (2003) 1355*



Ee >99%

$[\alpha]_D^{25} = -174.7$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: TADDOL

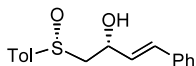
Absolute configuration: 4*R*,5*R*

$C_{32}H_{32}O_5$

(4*R*,5*R*)-[5-(Methoxydiphenylmethyl)-2,2-dimethyl-1,3-dioxolan-4-yl]diphenylmethyl hydroperoxide

Sadagopan Raghavan\* and M. Abdul Rasheed

*Tetrahedron: Asymmetry 14 (2003) 1371*



$C_{17}H_{18}O_2S$

(*S*)-1-(4-Methylphenylsulfinyl)-4-phenyl-(2*R*,3*E*)-3-buten-2-ol

De >95%

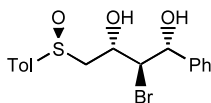
$[\alpha]_D^{24} = +112.6$  (*c* 0.6,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*<sub>s</sub>,2*R*)

Sadagopan Raghavan\* and M. Abdul Rasheed

*Tetrahedron: Asymmetry 14 (2003) 1371*



$C_{17}H_{19}BrO_3S$

2-Bromo-(*S*<sub>s</sub>)-4-(4-methylphenylsulfinyl)-1-phenyl-(1*R*,2*R*,3*S*)-butane-1,3-diol

De >95%

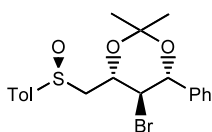
$[\alpha]_D^{24} = -124.9$  (*c* 1.47,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*<sub>s</sub>,1*R*,2*R*,3*S*)

Sadagopan Raghavan\* and M. Abdul Rasheed

*Tetrahedron: Asymmetry 14 (2003) 1371*



$C_{20}H_{23}BrO_3S$

5-Bromo-2,2-dimethyl-( $S_s$ )-4-(4-methylphenylsulfinylmethyl)-6-phenyl-(4*S*,5*R*,6*R*)-1,3-dioxane

De >95%

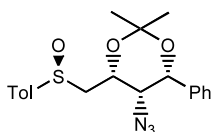
$[\alpha]_D^{24} = -127.5$  (*c* 1.04,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: ( $S_s$ ,4*S*,5*R*,6*R*)

Sadagopan Raghavan\* and M. Abdul Rasheed

*Tetrahedron: Asymmetry 14 (2003) 1371*



$C_{20}H_{23}N_3O_3S$

5-Azido-2,2-dimethyl-( $S_s$ )-4-(4-methylphenylsulfinylmethyl)-6-phenyl-(4*R*,5*S*,6*R*)-1,3-dioxane

De >95%

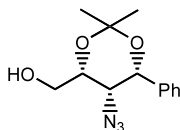
$[\alpha]_D^{24} = -131.75$  (*c* 0.99,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: ( $S_s$ ,4*R*,5*S*,6*R*)

Sadagopan Raghavan\* and M. Abdul Rasheed

*Tetrahedron: Asymmetry 14 (2003) 1371*



$C_{13}H_{17}N_3O_3$

5-Azido-2,2-dimethyl-6-phenyl-(4*R*,5*S*,6*R*)-1,3-dioxan-4-ylmethanol

De >95%

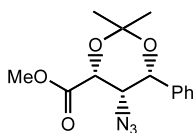
$[\alpha]_D^{24} = -147.0$  (*c* 1,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: (4*R*,5*S*,6*R*)

Sadagopan Raghavan\* and M. Abdul Rasheed

*Tetrahedron: Asymmetry 14 (2003) 1371*



$C_{14}H_{17}N_3O_4$

Methyl 5-azido-2,2-dimethyl-6-phenyl-(4*R*,5*S*,6*R*)-1,3-dioxane-4-carboxylate

De >95%

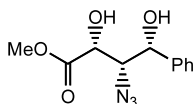
$[\alpha]_D^{24} = -94.95$  (*c* 1,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: (4*R*,5*S*,6*R*)

Sadagopan Raghavan\* and M. Abdul Rasheed

*Tetrahedron: Asymmetry 14 (2003) 1371*



$C_{11}H_{13}N_3O_4$

Methyl 3-azido-2,4-dihydroxy-4-phenyl-(2*R*,3*S*,4*R*)-butanoate

De >95%

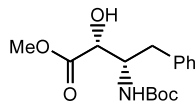
$[\alpha]_D^{24} = -115.2$  (c 1,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

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

Sadagopan Raghavan\* and M. Abdul Rasheed

*Tetrahedron: Asymmetry 14 (2003) 1371*



$C_{16}H_{23}NO_5$

Methyl 3-*N*-*t*-butyloxycarbonylamino-2-hydroxy-4-phenyl-(2*R*,3*S*)-butanoate

De >95%

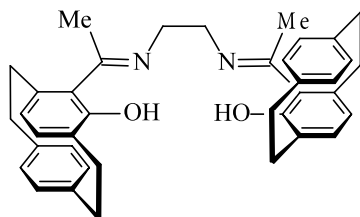
$[\alpha]_D^{24} = -73.4$  (c 0.25,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

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

Tat'yana I. Danilova, Valeria I. Rozenberg,\* Evgenii V. Vorontsov,  
Zoya A. Starikova and Henning Hopf\*

*Tetrahedron: Asymmetry 14 (2003) 1375*



$C_{38}H_{40}N_2O_2$

Schiff base of (*S*)-4-acetyl-5-hydroxy[2.2]paracyclophane and ethylenediamine

E.e. >99%

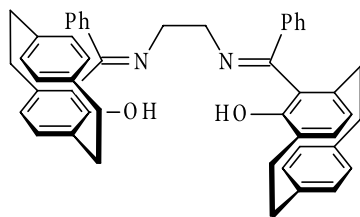
$[\alpha]_D^{22} = -695.5$  (c 0.2,  $CHCl_3$ )

Source of chirality: chiral starting material

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

Tat'yana I. Danilova, Valeria I. Rozenberg,\* Evgenii V. Vorontsov,  
Zoya A. Starikova and Henning Hopf\*

*Tetrahedron: Asymmetry 14 (2003) 1375*



$C_{48}H_{44}N_2O_2$

Schiff base of (*R*)-4-benzoyl-5-hydroxy[2.2]paracyclophane and ethylenediamine

E.e. 98%

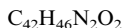
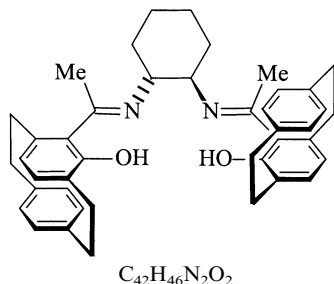
$[\alpha]_D^{22} = +855.4$  (c 0.2,  $CHCl_3$ )

Source of chirality: chiral starting material

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

Tat'yana I. Danilova, Valeria I. Rozenberg,\* Evgenii V. Vorontsov,  
Zoya A. Starikova and Henning Hopf\*

*Tetrahedron: Asymmetry 14 (2003) 1375*



Schiff base of (*S*)-4-acetyl-5-hydroxy[2.2]paracyclophane and (*1R,2R*)-cyclohexanediamine

E.e. >99%

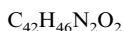
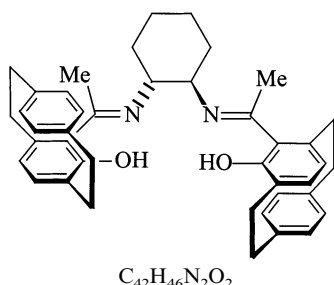
$[\alpha]_D^{22} = -1063.7$  (*c* 0.2,  $CHCl_3$ )

Source of chirality: chiral starting material

Absolute configuration: (*Sp,Sp,R,R*)

Tat'yana I. Danilova, Valeria I. Rozenberg,\* Evgenii V. Vorontsov,  
Zoya A. Starikova and Henning Hopf\*

*Tetrahedron: Asymmetry 14 (2003) 1375*



Schiff base of (*R*)-4-acetyl-5-hydroxy[2.2]paracyclophane and (*1R,2R*)-cyclohexanediamine

E.e. >99%

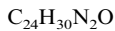
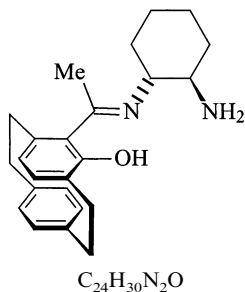
$[\alpha]_D^{22} = +613.3$  (*c* 0.2,  $CHCl_3$ )

Source of chirality: chiral starting material

Absolute configuration: (*Rp,Rp,R,R*)

Tat'yana I. Danilova, Valeria I. Rozenberg,\* Evgenii V. Vorontsov,  
Zoya A. Starikova and Henning Hopf\*

*Tetrahedron: Asymmetry 14 (2003) 1375*



Schiff base of (*S*)-4-acetyl-5-hydroxy[2.2]paracyclophane and (*1R,2R*)-cyclohexanediamine

E.e. >99%

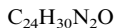
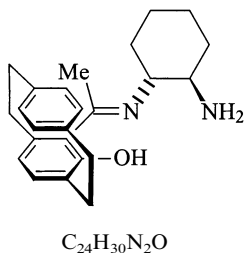
$[\alpha]_D^{22} = -709.9$  (*c* 0.2,  $CHCl_3$ )

Source of chirality: chiral starting material

Absolute configuration: (*Sp,R,R*)

Tat'yana I. Danilova, Valeria I. Rozenberg,\* Evgenii V. Vorontsov,  
Zoya A. Starikova and Henning Hopf\*

*Tetrahedron: Asymmetry 14 (2003) 1375*



Schiff base of (*R*)-4-acetyl-5-hydroxy[2.2]paracyclophane and (*1R,2R*)-cyclohexanediamine

E.e. >99%

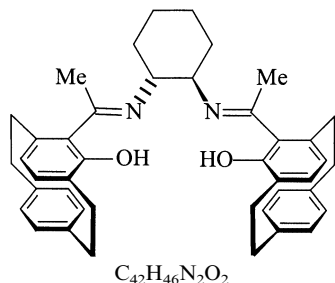
$[\alpha]_D^{22} = +464.2$  (*c* 0.3,  $CHCl_3$ )

Source of chirality: chiral starting material

Absolute configuration: (*Rp,R,R*)

Tat'yana I. Danilova, Valeria I. Rozenberg,\* Evgenii V. Vorontsov,  
Zoya A. Starikova and Henning Hopf\*

*Tetrahedron: Asymmetry 14 (2003) 1375*



Schiff base of (*S*)-4-acetyl-5-hydroxy[2.2]paracyclophane, (*R*)-4-acetyl-5-hydroxy[2.2]paracyclophane and (1*R*,2*R*)-cyclohexanediamine

E.e. >99%

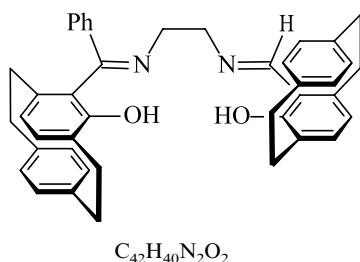
$[\alpha]_D^{22} = -463.5$  (*c* 0.2,  $CHCl_3$ )

Source of chirality: chiral starting material

Absolute configuration: (*Sp,Rp,R,R*)

Tat'yana I. Danilova, Valeria I. Rozenberg,\* Evgenii V. Vorontsov,  
Zoya A. Starikova and Henning Hopf\*

*Tetrahedron: Asymmetry 14 (2003) 1375*



Schiff base of (*S*)-4-benzoyl-5-hydroxy[2.2]paracyclophane, (*S*)-4-formyl-5-hydroxy[2.2]paracyclophane and ethylenediamine

E.e. 98%

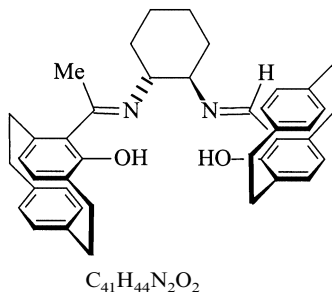
$[\alpha]_D^{22} = -1042.6$  (*c* 0.2,  $CHCl_3$ )

Source of chirality: chiral starting material

Absolute configuration: (*Sp,Sp*)

Tat'yana I. Danilova, Valeria I. Rozenberg,\* Evgenii V. Vorontsov,  
Zoya A. Starikova and Henning Hopf\*

*Tetrahedron: Asymmetry 14 (2003) 1375*



Schiff base of (*S*)-4-acetyl-5-hydroxy[2.2]paracyclophane, (*S*)-4-formyl-5-hydroxy[2.2]paracyclophane and (1*R*,2*R*)-cyclohexanediamine

E.e. >99%

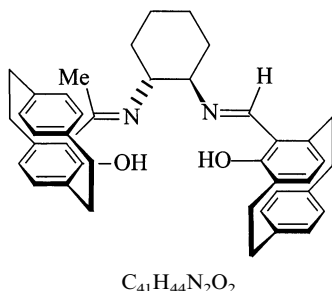
$[\alpha]_D^{22} = -1165.6$  (*c* 0.2,  $CHCl_3$ )

Source of chirality: chiral starting material

Absolute configuration: (*Sp,Sp,R,R*)

Tat'yana I. Danilova, Valeria I. Rozenberg,\* Evgenii V. Vorontsov,  
Zoya A. Starikova and Henning Hopf\*

*Tetrahedron: Asymmetry 14 (2003) 1375*



Schiff base of (*R*)-4-acetyl-5-hydroxy[2.2]paracyclophane, (*R*)-4-formyl-5-hydroxy[2.2]paracyclophane and (1*R*,2*R*)-cyclohexanediamine

E.e. >99%

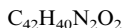
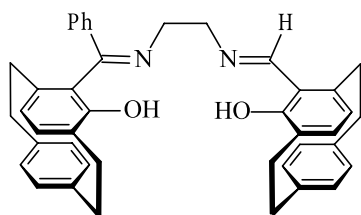
$[\alpha]_D^{22} = +612.4$  (*c* 0.2,  $CHCl_3$ )

Source of chirality: chiral starting material

Absolute configuration: (*Rp,Rp,R,R*)

Tat'yana I. Danilova, Valeria I. Rozenberg,\* Evgenii V. Vorontsov,  
Zoya A. Starikova and Henning Hopf\*

*Tetrahedron: Asymmetry 14 (2003) 1375*



Schiff base of (*S*)-4-benzoyl-5-hydroxy[2.2]paracyclophane, (*R*)-4-formyl-5-hydroxy[2.2]paracyclophane and (*1R,2R*)-cyclohexanediamine

E.e. 98%

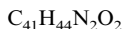
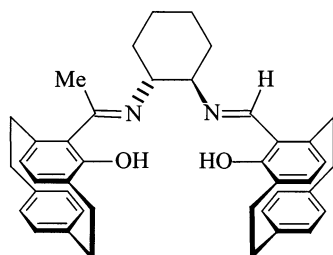
$[\alpha]_D^{22} = -175.1$  (*c* 0.2,  $CHCl_3$ )

Source of chirality: chiral starting material

Absolute configuration: (*Sp,Rp*)

Tat'yana I. Danilova, Valeria I. Rozenberg,\* Evgenii V. Vorontsov,  
Zoya A. Starikova and Henning Hopf\*

*Tetrahedron: Asymmetry 14 (2003) 1375*



Schiff base of (*S*)-4-acetyl-5-hydroxy[2.2]paracyclophane, (*R*)-4-formyl-5-hydroxy[2.2]paracyclophane and (*1R,2R*)-cyclohexanediamine

E.e. >99%

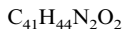
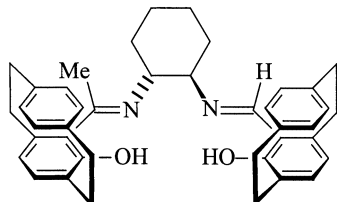
$[\alpha]_D^{22} = -420.0$  (*c* 0.2,  $CHCl_3$ )

Source of chirality: chiral starting material

Absolute configuration: (*Sp,Rp,R,R*)

Tat'yana I. Danilova, Valeria I. Rozenberg,\* Evgenii V. Vorontsov,  
Zoya A. Starikova and Henning Hopf\*

*Tetrahedron: Asymmetry 14 (2003) 1375*



Schiff base of (*R*)-4-acetyl-5-hydroxy[2.2]paracyclophane, (*S*)-4-formyl-5-hydroxy[2.2]paracyclophane and (*1R,2R*)-cyclohexanediamine

E.e. >99%

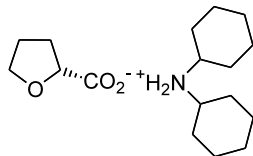
$[\alpha]_D^{22} = -371.4$  (*c* 0.2,  $CHCl_3$ )

Source of chirality: chiral starting material

Absolute configuration: (*Rp,Sp,R,R*)

Yoshito Fujima, Yoshihiro Hirayama, Masaya Ikunaka\* and  
Yukifumi Nishimoto

*Tetrahedron: Asymmetry 14 (2003) 1385*



*N,N*-Dicyclohexylammonium (*R*)-tetrahydrofuran-2-carboxylate

E.e. = 99.1%

$[\alpha]_D^{20} = +17.6$  (*c* 1.0, MeOH)

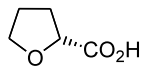
Source of chirality: enzymatic hydrolysis

Absolute configuration: (*R*)



Yoshito Fujima, Yoshihiro Hirayama, Masaya Ikunaka\* and Yukifumi Nishimoto

*Tetrahedron: Asymmetry 14 (2003) 1385*



(*R*)-Tetrahydrofuran-2-carboxylic acid

Ee = 99.1%

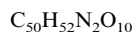
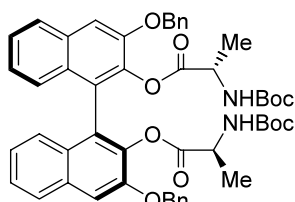
$[\alpha]_D^{20} +30.0$  (c 0.34,  $CHCl_3$ )

Source of chirality: enzymatic hydrolysis

Absolute configuration: (*R*)

Kazunori Tsubaki,\* Hiroshi Morikawa, Hiroyuki Tanaka and Kaoru Fuji\*

*Tetrahedron: Asymmetry 14 (2003) 1393*



2-*tert*-Butoxycarbonylamino-propionic acid 3,3'-bis(benzyloxy)-2'-(2-*tert*-butoxycarbonylamino-propionyloxy)-1,1'-binaphthalenyl-2-yl ester

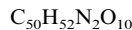
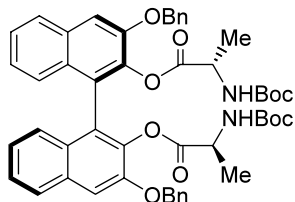
$[\alpha]_D^{20} = -59$  (c 1.04,  $CHCl_3$ )

Source of chirality: diastereomeric resolution

Absolute configuration: a*S,S,S*

Kazunori Tsubaki,\* Hiroshi Morikawa, Hiroyuki Tanaka and Kaoru Fuji\*

*Tetrahedron: Asymmetry 14 (2003) 1393*



2-*tert*-Butoxycarbonylamino-propionic acid 3,3'-bis(benzyloxy)-2'-(2-*tert*-butoxycarbonylamino-propionyloxy)-1,1'-binaphthalenyl-2-yl ester

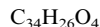
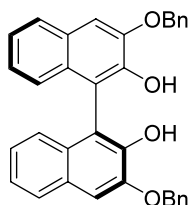
$[\alpha]_D^{20} = -24$  (c 1.50,  $CHCl_3$ )

Source of chirality: diastereomeric resolution

Absolute configuration: a*R,S,S*

Kazunori Tsubaki,\* Hiroshi Morikawa, Hiroyuki Tanaka and Kaoru Fuji\*

*Tetrahedron: Asymmetry 14 (2003) 1393*



(*S*)-3,3'-Bis(benzyloxy)-1,1'-binaphthalene-2,2'-diol

E.e. >99%

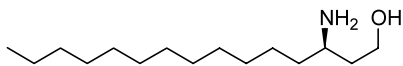
$[\alpha]_D^{20} = -56$  (c 1.02,  $CHCl_3$ )

$[\alpha]_D^{20} = -74$  (c 1.81, THF)

Absolute configuration: *S*

Nan Ma and Dawei Ma\*

*Tetrahedron: Asymmetry 14 (2003) 1403*



$C_{15}H_{33}NO$

(*R*)-3-Aminopentadecan-1-ol

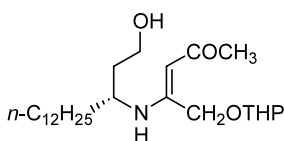
$[\alpha]_D^{20} = -5.6$  (*c* 0.75,  $CHCl_3$ )

Source of chirality: using (*R*)- $\alpha$ -methylbenzylamine as starting material

Absolute configuration: *R*

Nan Ma and Dawei Ma\*

*Tetrahedron: Asymmetry 14 (2003) 1403*



$C_{25}H_{47}NO_4$

(*R*)-4-[1-(2-Hydroxyethyl)-tridecylamino]-5-(tetrahydropyran-2-yloxy)-pent-3-en-2-one

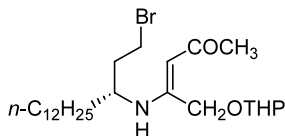
$[\alpha]_D^{20} = +8.7$  (*c* 0.36,  $CHCl_3$ )

Source of chirality: using (*R*)- $\alpha$ -methylbenzylamine as starting material

Absolute configuration: *R*

Nan Ma and Dawei Ma\*

*Tetrahedron: Asymmetry 14 (2003) 1403*



$C_{25}H_{46}BrNO_3$

(*R*)-4-[1-(2-Bromoethyl)-tridecylamino]-5-(tetrahydropyran-2-yloxy)-pent-3-en-2-one

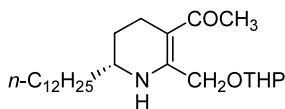
$[\alpha]_D^{20} = +10$  (*c* 0.06,  $CHCl_3$ )

Source of chirality: using (*R*)- $\alpha$ -methylbenzylamine as starting material

Absolute configuration: *R*

Nan Ma and Dawei Ma\*

*Tetrahedron: Asymmetry 14 (2003) 1403*



$C_{25}H_{45}NO_3$

(*R*)-1-[6-Dodecyl-2-(tetrahydropyran-2-yloxymethyl)-1,4,5,6-tetrahydropyridin-3-yl]ethanone

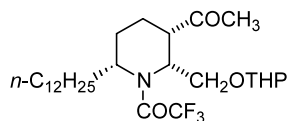
$[\alpha]_D^{20} = +57.6$  (*c* 0.4,  $CHCl_3$ )

Source of chirality: using (*R*)- $\alpha$ -methylbenzylamine as starting material

Absolute configuration: *R*

Nan Ma and Dawei Ma\*

*Tetrahedron: Asymmetry 14 (2003) 1403*



1-[(2*R*,3*S*,6*R*)-3-Acetyl-6-dodecyl-2-(tetrahydro-pyran-2-yloxymethyl)-piperidin-1-yl]-2,2,2-trifluoro-ethanone

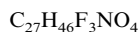
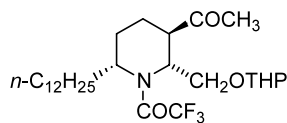
$[\alpha]_D^{20} = +33$  (*c* 0.8, EtOAc)

Source of chirality: using (*R*)- $\alpha$ -methylbenzylamine as starting material

Absolute configuration: *R,S,R*

Nan Ma and Dawei Ma\*

*Tetrahedron: Asymmetry 14 (2003) 1403*



1-[(2*R*,3*R*,6*R*)-3-Acetyl-6-dodecyl-2-(tetrahydro-pyran-2-yloxymethyl)-piperidin-1-yl]-2,2,2-trifluoro-ethanone

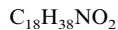
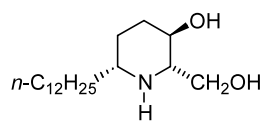
$[\alpha]_D^{20} = -7.5$  (*c* 1.1, CHCl<sub>3</sub>)

Source of chirality: using (*R*)- $\alpha$ -methylbenzylamine as starting material

Absolute configuration: *R,R,R*

Nan Ma and Dawei Ma\*

*Tetrahedron: Asymmetry 14 (2003) 1403*



(-)-Deoxoprosphylline

$[\alpha]_D^{20} = -13.6$  (*c* 0.3, CHCl<sub>3</sub>)

Source of chirality: using (*R*)- $\alpha$ -methylbenzylamine as starting material

Absolute configuration: *R*