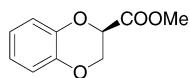


**Stereochemistry abstracts**

Cristiano Bolchi,\* Marco Pallavicini, Laura Fumagalli, Chiara Rusconi,  
Matteo Binda and Ermanno Valoti

*Tetrahedron: Asymmetry* 18 (2007) 1038



(*R*)-Methyl 1,4-benzodioxan-2-carboxylate

Ee >99%

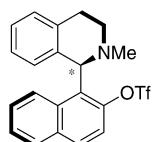
$[\alpha]_D^{25} = +57$  (*c* 1,  $CHCl_3$ )

Source of chirality: resolution of racemate by preferential crystallization

Absolute configuration: (*R*)

Jianqing Feng, D. Scott Bohle and Chao-Jun Li\*

*Tetrahedron: Asymmetry* 18 (2007) 1043



(*S,aR*) (-)-1-(1,2,3,4-Tetrahydro-2-methylisoquinolin-1-yl)naphthalen-2-yl trifluoromethanesulfonate

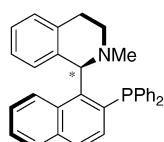
$[\alpha]_D^{20} = -81.55$  (*c* 1.8,  $CH_2Cl_2$ )

Source of chirality: enantiomerically pure starting material

Absolute configuration: (*S,aR*)

Jianqing Feng, D. Scott Bohle and Chao-Jun Li\*

*Tetrahedron: Asymmetry* 18 (2007) 1043



$[\alpha]_D^{20} = -130.5$  (*c* 1.4,  $CHCl_3$ )

Source of chirality: enantiomerically pure starting material

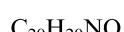
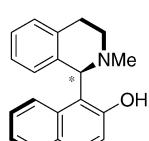
Absolute configuration: (*S,aR*)



(mTHIQ-NAP) (*S,aR*)-1,2,3,4-Tetrahydro-2-methyl-1-(2-(diphenylphosphino)naphthalen-1-yl)isoquinoline

Jianqing Feng, D. Scott Bohle and Chao-Jun Li\*

*Tetrahedron: Asymmetry* 18 (2007) 1043

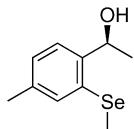


(mTHIQNOL) (*S,aR*) (-)-1-(2-Methyl-1,2,3,4-tetrahydroisoquinolin-1-yl)naphthalen-2-ol

$[\alpha]_D^{20} = -304.7$  (*c* 0.4;  $CH_2Cl_2$ )

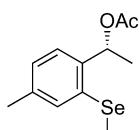
Source of chirality: resolution

Absolute configuration: (*S,aR*)



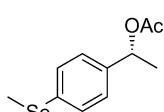
C<sub>10</sub>H<sub>14</sub>OSe  
(-)-(S)-1-(2-(Methylselanyl)-4-methylphenyl)ethanol

Ee = 99%  
 $[\alpha]_D^{25} = -50.7$  (*c* 1.24, CHCl<sub>3</sub>)  
Absolute configuration: (S)



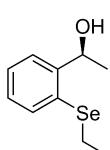
C<sub>12</sub>H<sub>16</sub>O<sub>2</sub>Se  
(+)-(R)-1-(2-(Methylselanyl)-4-methylphenyl)ethyl acetate

Ee = 99%  
 $[\alpha]_D^{25} = +40.8$  (*c* 1.57, CHCl<sub>3</sub>)  
Absolute configuration: (R)



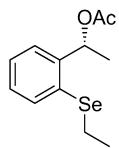
C<sub>11</sub>H<sub>14</sub>O<sub>2</sub>Se  
(+)-(R)-1-(4-(Methylselanyl)phenyl)ethyl acetate

Ee = 99%  
 $[\alpha]_D^{25} = +127.3$  (*c* 1.4, CHCl<sub>3</sub>)  
Absolute configuration: (R)



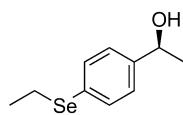
C<sub>10</sub>H<sub>14</sub>OSe  
(-)-(S)-1-(2-(Ethylselanyl)phenyl)ethanol

Ee = 99%  
 $[\alpha]_D^{25} = -54.2$  (*c* 1.4, CHCl<sub>3</sub>)  
Absolute configuration: (S)



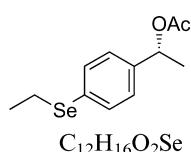
C<sub>12</sub>H<sub>16</sub>O<sub>2</sub>Se  
(+)-(R)-1-(2-Ethylselanyl)phenylethyl acetate

Ee = 76%  
[ $\alpha$ ]<sub>D</sub><sup>25</sup> = +31.35 (c 1.4, CHCl<sub>3</sub>)  
Absolute configuration: (R)



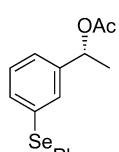
C<sub>10</sub>H<sub>14</sub>OSe  
(−)-(S)-1-(4-Ethylselanyl)phenylethanol

Ee = 99%  
[ $\alpha$ ]<sub>D</sub><sup>25</sup> = −55.4 (c 1.3, CHCl<sub>3</sub>)  
Absolute configuration: (S)



C<sub>12</sub>H<sub>16</sub>O<sub>2</sub>Se  
(+)-(R)-1-(4-Ethylselanyl)phenylethyl acetate

Ee = 90%  
[ $\alpha$ ]<sub>D</sub><sup>25</sup> = +88.4 (c 1.3, CHCl<sub>3</sub>)  
Absolute configuration: (R)

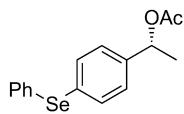


C<sub>16</sub>H<sub>16</sub>O<sub>2</sub>Se  
(+)-(R)-1-(3-Phenylselanyl)phenylethyl acetate

Ee = 90%  
[ $\alpha$ ]<sub>D</sub><sup>25</sup> = +43.3 (c 1.2, CHCl<sub>3</sub>)  
Absolute configuration: (R)

Álvaro T. Omori, Leonardo F. Assis, Leandro H. Andrade,  
João V. Comasseto and André L. M. Porto\*

*Tetrahedron: Asymmetry* 18 (2007) 1048

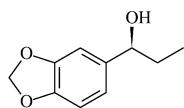


C<sub>16</sub>H<sub>16</sub>O<sub>2</sub>Se  
(+)-(R)-1-(4-(Phenylselenyl)phenyl)ethyl acetate

Ee = 99%  
[ $\alpha$ ]<sub>D</sub><sup>25</sup> = +84.4 (c 1.1, CHCl<sub>3</sub>)  
Absolute configuration: (R)

Juliana B. Reigada, Celize. M. Tcacenco, Leandro H. Andrade,  
Massuo J. Kato, André L. M. Porto and João Henrique G. Lago\*

*Tetrahedron: Asymmetry* 18 (2007) 1054

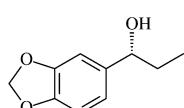


C<sub>10</sub>H<sub>12</sub>O<sub>3</sub>  
(-)-(S)-1-(3,4-Methylenedioxyphenyl)propan-1-ol (marginatol)

Ee = 99%  
[ $\alpha$ ]<sub>D</sub><sup>25</sup> = -34.1 (c 3.26, CHCl<sub>3</sub>)  
Absolute configuration: (S)

Juliana B. Reigada, Celize. M. Tcacenco, Leandro H. Andrade,  
Massuo J. Kato, André L. M. Porto and João Henrique G. Lago\*

*Tetrahedron: Asymmetry* 18 (2007) 1054

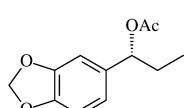


C<sub>10</sub>H<sub>12</sub>O<sub>3</sub>  
(+)-(R)-1-(3,4-Methylenedioxyphenyl)propan-1-ol (marginatol)

Ee = 99%  
[ $\alpha$ ]<sub>D</sub><sup>25</sup> = +31.6 (c 3.20, CHCl<sub>3</sub>)  
Absolute configuration: (R)

Juliana B. Reigada, Celize. M. Tcacenco, Leandro H. Andrade,  
Massuo J. Kato, André L. M. Porto and João Henrique G. Lago\*

*Tetrahedron: Asymmetry* 18 (2007) 1054

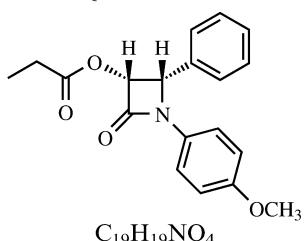


C<sub>12</sub>H<sub>14</sub>O<sub>4</sub>  
(+)-(R)-1-(3,4-Methylenedioxyphenyl)propyl acetate

Ee = 99%  
[ $\alpha$ ]<sub>D</sub><sup>25</sup> = +101.3 (c 3.10, CHCl<sub>3</sub>)  
Absolute configuration: (R)

Naveen Anand, Munish Kapoor, Khursheed Ahmad, Surrinder Koul, Rajinder Parshad, Kuldip S. Manhas, Rattan L. Sharma, Ghulam N. Qazi and Subhash C. Taneja\*

*Tetrahedron: Asymmetry* 18 (2007) 1059



(+)-*cis*-(3*R*,4*S*)-3-Propyloxy-1-(4-methoxyphenyl)-4-phenyl-2-azetidinone

Ee >99.5% (HPLC analysis)

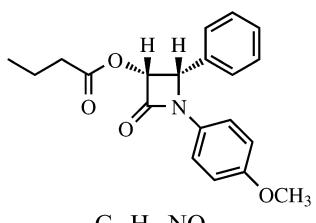
$[\alpha]_D^{25} = +3.5$  (*c* 0.6, CHCl<sub>3</sub>)

Source of chirality: enzymatic hydrolysis

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

Naveen Anand, Munish Kapoor, Khursheed Ahmad, Surrinder Koul, Rajinder Parshad, Kuldip S. Manhas, Rattan L. Sharma, Ghulam N. Qazi and Subhash C. Taneja\*

*Tetrahedron: Asymmetry* 18 (2007) 1059



(+)-*cis*-(3*R*,4*S*)-3-Butyloxy-1-(4-methoxyphenyl)-4-phenyl-2-azetidinone

Ee >99.5% (HPLC analysis)

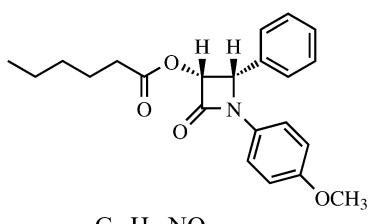
$[\alpha]_D^{25} = +7.6$  (*c* 0.54, CHCl<sub>3</sub>)

Source of chirality: enzymatic hydrolysis

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

Naveen Anand, Munish Kapoor, Khursheed Ahmad, Surrinder Koul, Rajinder Parshad, Kuldip S. Manhas, Rattan L. Sharma, Ghulam N. Qazi and Subhash C. Taneja\*

*Tetrahedron: Asymmetry* 18 (2007) 1059



(+)-*cis*-(3*R*,4*S*)-3-Hexyloxy-1-(4-methoxyphenyl)-4-phenyl-2-azetidinone

Ee >99.5% (HPLC analysis)

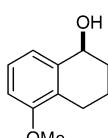
$[\alpha]_D^{25} = +11.6$  (*c* 1, CHCl<sub>3</sub>)

Source of chirality: enzymatic hydrolysis

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

Helena M. C. Ferraz,\* Graziela G. Bianco, Carla C. Teixeira, Leandro H. Andrade and André L. M. Porto

*Tetrahedron: Asymmetry* 18 (2007) 1070



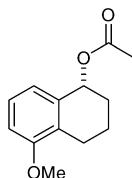
$C_{11}H_{14}O_2$   
(*S*)-1,2,3,4-Tetrahydro-5-methoxynaphthalen-1-ol

Ee >99%

$[\alpha]_D^{27} = +23.3$  (*c* 1.04, CHCl<sub>3</sub>)

Source of chirality: enzymatic resolution

Absolute configuration: (1*S*)



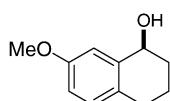
(*R*)-1,2,3,4-Tetrahydro-5-methoxynaphthalen-1-yl acetate

Ee >99%

[ $\alpha$ ]<sub>D</sub><sup>27</sup> = +101.8 (*c* 1.30, CHCl<sub>3</sub>)

Source of chirality: enzymatic resolution

Absolute configuration: (1*R*)



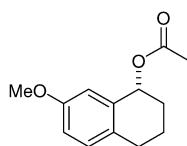
(*S*)-1,2,3,4-Tetrahydro-7-methoxynaphthalen-1-ol

Ee >99%

[ $\alpha$ ]<sub>D</sub><sup>24</sup> = +41.9 (*c* 1.05, CHCl<sub>3</sub>)

Source of chirality: enzymatic resolution

Absolute configuration: (1*S*)



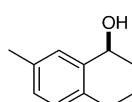
(*R*)-1,2,3,4-Tetrahydro-7-methoxynaphthalen-1-yl acetate

Ee >99%

[ $\alpha$ ]<sub>D</sub><sup>24</sup> = +88.5 (*c* 1.14, CHCl<sub>3</sub>)

Source of chirality: enzymatic resolution

Absolute configuration: (1*R*)



(*S*)-1,2,3,4-Tetrahydro-5,7-dimethylnaphthalen-1-ol

Ee = 99%

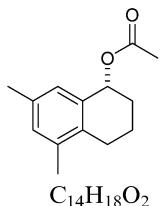
[ $\alpha$ ]<sub>D</sub><sup>27</sup> = +38.9 (*c* 1.20, CHCl<sub>3</sub>)

Source of chirality: enzymatic resolution

Absolute configuration: (1*S*)

Helena M. C. Ferraz,\* Graziela G. Bianco, Carla C. Teixeira,  
Leandro H. Andrade and André L. M. Porto

*Tetrahedron: Asymmetry* 18 (2007) 1070



(*R*)-1,2,3,4-Tetrahydro-5,7-dimethylnaphthalen-1-yl acetate

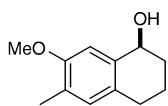
Ee = 99%  
 $[\alpha]_D^{22} = +98.1$  (*c* 1.22, CHCl<sub>3</sub>)

Source of chirality: enzymatic resolution

Absolute configuration: (*R*)

Helena M. C. Ferraz,\* Graziela G. Bianco, Carla C. Teixeira,  
Leandro H. Andrade and André L. M. Porto

*Tetrahedron: Asymmetry* 18 (2007) 1070



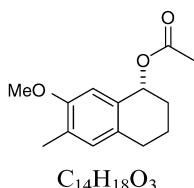
(+)-1,2,3,4-Tetrahydro-6-methyl-7-methoxynaphthalen-1-ol

Ee = 98%  
 $[\alpha]_D^{27} = +36.9$  (*c* 0.99, CHCl<sub>3</sub>)

Source of chirality: enzymatic resolution

Helena M. C. Ferraz,\* Graziela G. Bianco, Carla C. Teixeira,  
Leandro H. Andrade and André L. M. Porto

*Tetrahedron: Asymmetry* 18 (2007) 1070



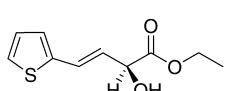
(+)-1,2,3,4-Tetrahydro-6-methyl-7-methoxynaphthalen-1-yl acetate

Ee >99%  
 $[\alpha]_D^{27} = +106.6$  (*c* 1.22, CHCl<sub>3</sub>)

Source of chirality: enzymatic resolution

T. Vaijayanthi and Anju Chadha\*

*Tetrahedron: Asymmetry* 18 (2007) 1077

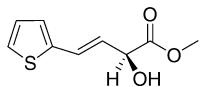


(3*E*)-Ethyl-4-(thiophen-2-yl)-2-hydroxybut-3-enoate

Ee >99%  
 $[\alpha]_D^{25} = +97.6$  (*c* 1, MeOH) (rotation for corresponding acid)

Source of chirality: biocatalytic deracemisation

Absolute configuration: (*S*)



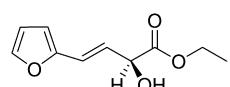
C<sub>9</sub>H<sub>10</sub>O<sub>3</sub>S  
(3E)-Methyl-4-(thiophen-2-yl)-2-hydroxybut-3-enoate

Ee &gt;99%

[ $\alpha$ ]<sub>D</sub><sup>25</sup> = +96.9 (c 1, MeOH) (rotation for corresponding acid)

Source of chirality: biocatalytic deracemisation

Absolute configuration: (S)



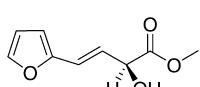
C<sub>10</sub>H<sub>12</sub>O<sub>4</sub>  
(3E)-Ethyl-4-(furan-2-yl)-2-hydroxybut-3-enoate

Ee &gt;99%

[ $\alpha$ ]<sub>D</sub><sup>25</sup> = +25.6 (c 1, MeOH) (rotation for corresponding acid)

Source of chirality: biocatalytic deracemisation

Absolute configuration: (S)



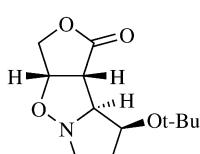
C<sub>9</sub>H<sub>10</sub>O<sub>4</sub>  
(3E)-Methyl-4-(furan-2-yl)-2-hydroxybut-3-enoate

Ee &gt;99%

[ $\alpha$ ]<sub>D</sub><sup>25</sup> = +25.1 (c 1, MeOH) (rotation for corresponding acid)

Source of chirality: biocatalytic deracemisation

Absolute configuration: (S)



C<sub>12</sub>H<sub>19</sub>NO<sub>4</sub>  
(1aS,4aR,4bS,5S)-5-tert-Butoxyhexahydrofuro[3,4-d]pyrrolo[1,2-b]isoxazol-4-(3H)-one

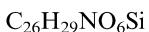
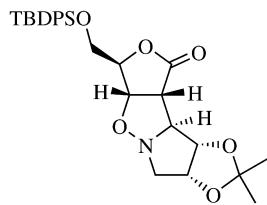
[ $\alpha$ ]<sub>D</sub><sup>25</sup> = +1.2 (c 0.4, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality: asymmetric synthesis

Absolute configuration: (1aS,4aR,4bS,5S)

Sebastian Stecko, Konrad Paśniczek, Margarita Jurczak,  
Zofia Urbańczyk-Lipkowska and Marek Chmielewski\*

*Tetrahedron: Asymmetry* 18 (2007) 1085



(1a*S*,2*R*,4a*R*,4b*S*,5*S*,6*R*)-2-*tert*-Butyldiphenylsiloxyethyl-hexahydro-5,6-*O*-isopropylidenedioxy-pyrrolo[1,2-*b*]-furo[3,4-*d*]-isoxazol-4(3*H*)-one

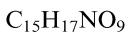
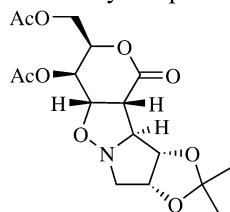
[ $\alpha$ ]<sub>D</sub><sup>25</sup> = +22.5 (c 0.4, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality: asymmetric synthesis

Absolute configuration: (1a*S*,2*R*,4a*R*,4b*S*,5*S*,6*R*)

Sebastian Stecko, Konrad Paśniczek, Margarita Jurczak,  
Zofia Urbańczyk-Lipkowska and Marek Chmielewski\*

*Tetrahedron: Asymmetry* 18 (2007) 1085



(1a*S*,2*R*,3*R*,5*a**R*,5*b**S*,6*S*,7*R*)-2-Acetoxy-3-acetoxymethyl-hexahydro-6,7-*O*-isopropylidenedioxy-pyrrolo[1,2-*b*]-pyrano[3,4-*d*]-isoxazol-5(3*H*)-one

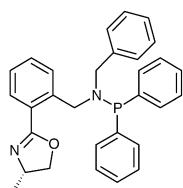
[ $\alpha$ ]<sub>D</sub><sup>25</sup> = +30.7 (c 0.8, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality: asymmetric synthesis

Absolute configuration: (1a*S*,2*S*,3*R*,5*a**R*,5*b**S*,6*S*,7*R*)

Raymond P. J. Bronger and Patrick J. Guiry\*

*Tetrahedron: Asymmetry* 18 (2007) 1094



2-(*N*-Benzyl-*N*-diphenylphosphino-2-aminomethylphenyl)-(4*S*)-4-methyl- 4,5-dihydrooxazole

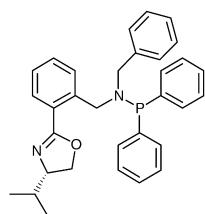
[ $\alpha$ ]<sub>D</sub><sup>20</sup> = +88 (c 0.28, CHCl<sub>3</sub>)

Source of chirality: (*S*)-(+)2-amino-1-propanol

Absolute configuration: (*S*)

Raymond P. J. Bronger and Patrick J. Guiry\*

*Tetrahedron: Asymmetry* 18 (2007) 1094

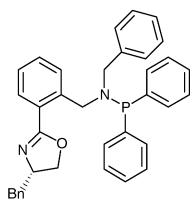


2-(*N*-Benzyl-*N*-diphenylphosphino-2-aminomethylphenyl)-(4*S*)-4-*i*-propyl-4,5-dihydrooxazole

[ $\alpha$ ]<sub>D</sub><sup>20</sup> = +114 (c 0.30, CHCl<sub>3</sub>)

Source of chirality: (*S*)-(+)2-amino-3-methyl-1-butanol

Absolute configuration: (*S*)

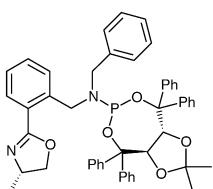


$C_{36}H_{33}N_2OP$   
2-(*N*-Benzyl-*N*-diphenylphosphino-2-aminomethylphenyl)-(4*S*)-4-benzyl-4,5-dihydrooxazole

$[\alpha]_D^{20} = +51$  (*c* 0.30, CHCl<sub>3</sub>)

Source of chirality: (*S*)-(−)-2-amino-3-phenyl-1-propanol

Absolute configuration: (*S*)

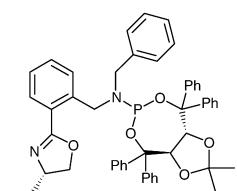


$C_{49}H_{48}N_2O_5P$   
2-(*N*-Benzyl-*N*-(−)-TADDOL-2-aminomethylphenyl)-(4*S*)-4-methyl-4,5-dihydrooxazole

$[\alpha]_D^{20} = -121.2$  (*c* 0.33, CHCl<sub>3</sub>)

Source of chirality: (*S*)-(+)2-amino-1-propanol; (4*R,5R*)-2,2-dimethyl- $\alpha,\alpha,\alpha',\alpha'$ -tetraphenylidioxolane-4,5-dimethanol

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

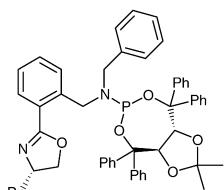


$C_{51}H_{51}N_2O_5P$   
2-(*N*-Benzyl-*N*-(−)-TADDOL-2-aminomethylphenyl)-(4*S*)-4-*i*-propyl-4,5-dihydrooxazole

$[\alpha]_D^{20} = -145$  (*c* 0.31, CHCl<sub>3</sub>)

Source of chirality: (*S*)-(+)2-amino-3-methyl-1-butanol; (4*R,5R*)-2,2-dimethyl- $\alpha,\alpha,\alpha',\alpha'$ -tetraphenylidioxolane-4,5-dimethanol

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

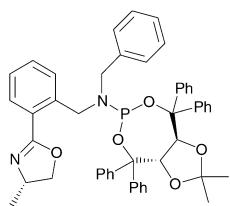
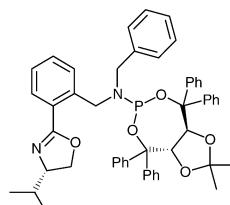
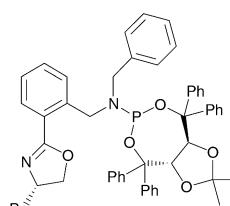
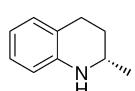


$C_{55}H_{52}N_2O_5P$   
2-(*N*-Benzyl-*N*-(−)-TADDOL-2-aminomethylphenyl)-(4*S*)-4-benzyl-4,5-dihydrooxazole

$[\alpha]_D^{20} = -112$  (*c* 0.28, CHCl<sub>3</sub>)

Source of chirality: (*S*)-(−)-2-amino-3-phenyl-1-propanol; (4*R,5R*)-2,2-dimethyl- $\alpha,\alpha,\alpha',\alpha'$ -tetraphenylidioxolane-4,5-dimethanol

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

 $C_{49}H_{48}N_2O_5P$ 2-(*N*-Benzyl-*N*(+)-TADDOL-2-aminomethylphenyl)-(4*S*)-4-methyl-4,5-dihydrooxazole $[\alpha]_D^{20} = +97$  (*c* 0.28, CHCl<sub>3</sub>)Source of chirality: (*S*)-(+)-2-amino-1-propanol; (4*S*,5*S*)-2,2-dimethyl- $\alpha,\alpha,\alpha',\alpha'$ -tetraphenylidoxolane-4,5-dimethanolAbsolute configuration: (*S,S,S*) $C_{51}H_{51}N_2O_5P$ 2-(*N*-Benzyl-*N*(+)-TADDOL-2-aminomethylphenyl)-(4*S*)-4-*i*-propyl-4,5-dihydrooxazole $[\alpha]_D^{20} = +95$  (*c* 0.29, CHCl<sub>3</sub>)Source of chirality: (*S*)-(+)-2-amino-3-methyl-1-butanol; (4*S*,5*S*)-2,2-dimethyl- $\alpha,\alpha,\alpha',\alpha'$ -tetraphenylidoxolane-4,5-dimethanolAbsolute configuration: (*S,S,S*) $C_{55}H_{52}N_2O_5P$ 2-(*N*-Benzyl-*N*(+)-TADDOL-2-aminomethylphenyl)-(4*S*)-4-benzyl-4,5-dihydrooxazole $[\alpha]_D^{20} = +55$  (*c* 0.29, CHCl<sub>3</sub>)Source of chirality: (*S*)-(-)-2-amino-3-phenyl-1-propanol; (4*S*,5*S*)-2,2-dimethyl- $\alpha,\alpha,\alpha',\alpha'$ -tetraphenylidoxolane-4,5-dimethanolAbsolute configuration: (*S,S,S*) $C_{10}H_{13}N$ 

(S)-2-Methyl-1,2,3,4-tetrahydroquinoline

 $[\alpha]_D = -73.2$  (*c* 0.56, CHCl<sub>3</sub>)

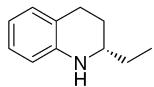
Source of chirality: asymmetric hydrogenation

Absolute configuration: (*S*)

$[\alpha]_D = -70.9$  (*c* 0.66, CHCl<sub>3</sub>)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (*S*)



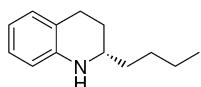
C<sub>11</sub>H<sub>15</sub>N

(*S*)-2-Ethyl-1,2,3,4-tetrahydroquinoline

$[\alpha]_D = -72.2$  (*c* 0.92, CHCl<sub>3</sub>)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (*S*)



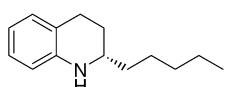
C<sub>13</sub>H<sub>19</sub>N

(*S*)-2-Butyl-1,2,3,4-tetrahydroquinoline

$[\alpha]_D = -41.3$  (*c* 0.92, CHCl<sub>3</sub>)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (*S*)



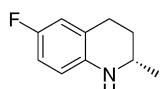
C<sub>14</sub>H<sub>21</sub>N

(*S*)-2-Pentyl-1,2,3,4-tetrahydroquinoline

$[\alpha]_D = -54.4$  (*c* 0.70, CHCl<sub>3</sub>)

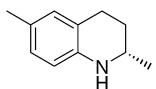
Source of chirality: asymmetric hydrogenation

Absolute configuration: (*S*)



C<sub>10</sub>H<sub>12</sub>FN

(*S*)-6-Fluoro-2-methyl-1,2,3,4-tetrahydroquinoline

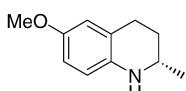


C<sub>11</sub>H<sub>15</sub>N  
(S)-2,6-Dimethyl-1,2,3,4-tetrahydroquinoline

[ $\alpha$ ]<sub>D</sub> = -65.3 (*c* 0.62, CHCl<sub>3</sub>)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (S)

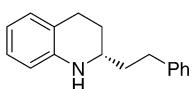


C<sub>11</sub>H<sub>15</sub>NO  
(S)-6-Methoxy-2-methyl-1,2,3,4-tetrahydroquinoline

[ $\alpha$ ]<sub>D</sub> = -63.5 (*c* 0.36, CHCl<sub>3</sub>)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (S)

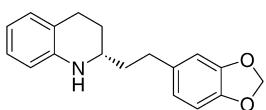


C<sub>17</sub>H<sub>19</sub>N  
(S)-2-Phenethyl-1,2,3,4-tetrahydroquinoline

[ $\alpha$ ]<sub>D</sub> = -67.2 (*c* 1.14, CHCl<sub>3</sub>)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (S)



C<sub>18</sub>H<sub>19</sub>NO<sub>2</sub>  
(S)-2-(3',4'-Methylenedioxyphenethyl)-1,2,3,4-tetrahydroquinoline

[ $\alpha$ ]<sub>D</sub> = -50.0 (*c* 1.19, CHCl<sub>3</sub>)

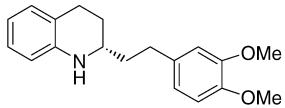
Source of chirality: asymmetric hydrogenation

Absolute configuration: (S)

$[\alpha]_D = -43.8$  (*c* 1.34, CHCl<sub>3</sub>)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (*S*)



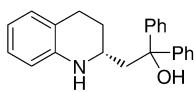
C<sub>19</sub>H<sub>23</sub>NO<sub>2</sub>

(*S*)-2-(3',4'-Dimethoxyphenethyl)-1,2,3,4-tetrahydroquinoline

$[\alpha]_D = -82.6$  (*c* 1.18, CHCl<sub>3</sub>)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (*R*)



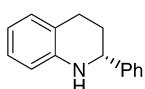
C<sub>23</sub>H<sub>23</sub>NO

(*R*)-1,1-Diphenyl-2-(1,2,3,4-tetrahydroquinolin-2-yl)-ethanol

$[\alpha]_D = +7.6$  (*c* 0.88, CHCl<sub>3</sub>)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (*R*)

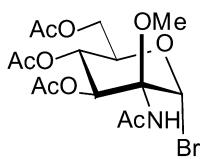


C<sub>15</sub>H<sub>15</sub>N

(*R*)-2-Phenyl-1,2,3,4-tetrahydroquinoline

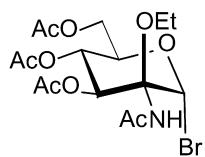
$[\alpha]_D^{20} = +141$  (*c* 1.8, CHCl<sub>3</sub>)

Source of chirality: D-glucose



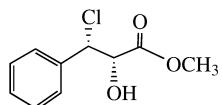
C<sub>15</sub>H<sub>22</sub>NO<sub>9</sub>Br

2-C-Acetamido-3,4,6-tri-O-acetyl-2-O-methyl-alpha-D-mannopyranosyl bromide



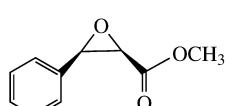
$C_{16}H_{24}NO_9Br$   
2-C-Acetamido-3,4,6-tri-O-acetyl-2-O-ethyl- $\alpha$ -D-mannopyranosyl bromide

$[\alpha]_D^{20} = +127$  (*c* 0.9, CHCl<sub>3</sub>)  
Source of chirality: D-glucose



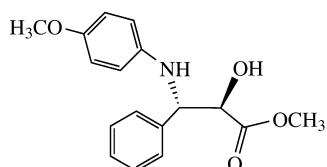
$C_{10}H_{11}ClO_3$   
(2S,3S)-(+)-Methyl-3-chloro-2-hydroxy-3-phenylpropanoate

Ee = >99%  
 $[\alpha]_D^{25} = +46$  (*c* 1.07, CH<sub>2</sub>Cl<sub>2</sub>)  
Source of chirality: enzyme SSCR resolution  
Absolute configuration: (2S,3S)



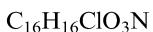
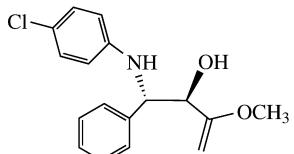
$C_{10}H_{10}O_3$   
(2R,3R)-(+)-Methyl 3-phenylglycidate

Ee = >99%  
 $[\alpha]_D^{25} = +10.8$  (*c* 1.03, CH<sub>2</sub>Cl<sub>2</sub>)  
Source of chirality: enantiopure reactant  
Absolute configuration: (2R,3R)



$C_{17}O_4NH_{19}$   
(2R,3S)-(+)-Methyl 3-(4-methoxyphenylamino)-2-hydroxy-3-phenylpropanoate

Ee = >99%  
 $[\alpha]_D^{25} = +10.3$  (*c* 0.99, CH<sub>2</sub>Cl<sub>2</sub>)  
Source of chirality: enantiopure reactant  
Absolute configuration: (2R,3S)



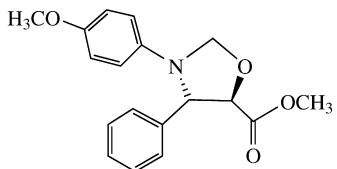
(2*R*,3*S*)-(+)-Methyl 3-(4-chlorophenylamino)-2-hydroxy-3-phenylpropanoate

Ee = >99%

$[\alpha]_D^{25} = +7.86$  (*c* 1.36,  $CH_2Cl_2$ )

Source of chirality: enantiopure reactant

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



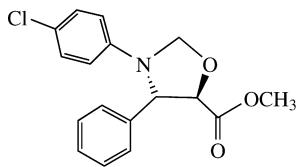
(4*S*,5*R*)-(+)-Methyl 3-(4-methoxyphenyl)-4-phenyl-1,3-oxazolidine-5-carboxylate

Ee = >99%

$[\alpha]_D^{25} = +48.7$  (*c* 1.02,  $CH_2Cl_2$ )

Source of chirality: enantiopure reactant

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



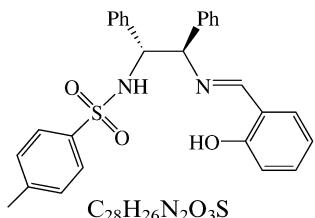
(4*S*,5*R*)-(+)-Methyl 3-(4-chlorophenyl)-4-phenyl-1,3-oxazolidine-5-carboxylate

Ee = >99%

$[\alpha]_D^{25} = +36.1$  (*c* 0.55,  $CH_2Cl_2$ )

Source of chirality: enantiopure reactant

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

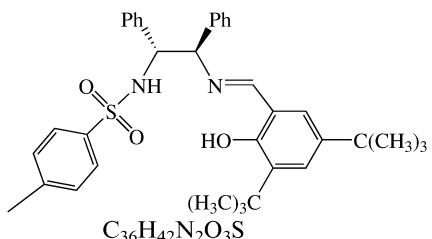


*N*-((1*R*,2*R*)-2-((*E*)-2-Hydroxybenzylideneamino)-1,2-diphenylethyl)-4-methylbenzenesulfonamide

$[\alpha]_D^{25} = +12.1$  (*c* 3.0,  $CH_2Cl_2$ )

Source of chirality: (*R,R*)-1,2-diphenylethane-1,2-diamine

Absolute configuration: (*R,R*)

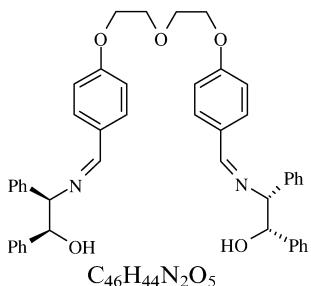


*N*-((1*R*,2*R*)-2-((*E*)-3,5-Di-*tert*-butyl-2-hydroxybenzylideneamino)-1,2-diphenylethyl)-4-methylbenzenesulfonamide

$[\alpha]_D^{25} = +17.9$  (*c* 3.0, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality: (*R,R*)-1,2-Diphenylethane-1,2-diamine

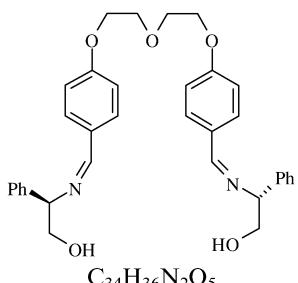
Absolute configuration: (*R,R*)



$[\alpha]_D^{20} = +12.2$  (*c* 2, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality: (1*S*,2*R*)-2-amino-1,2-diphenylethanol

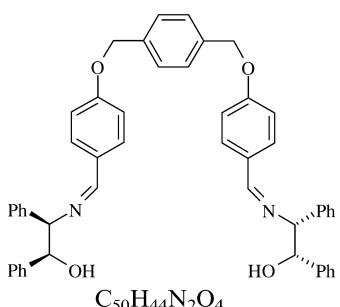
Absolute configuration: (*S,R,S,R*)



$[\alpha]_D^{20} = +103.2$  (*c* 2, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality: (*R*)-(−)-phenylglycinol

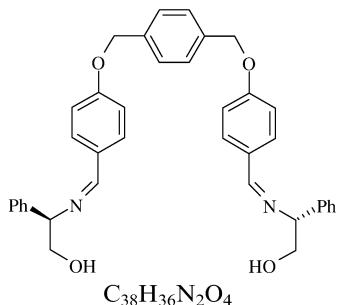
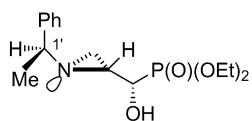
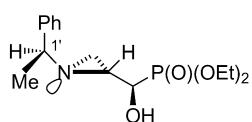
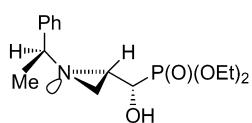
Absolute configuration: (*R,R*)

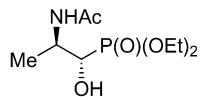


$[\alpha]_D^{20} = +50$  (*c* 2, CH<sub>2</sub>Cl<sub>2</sub>)

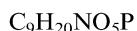
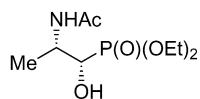
Source of chirality: (1*S*,2*R*)-2-amino-1,2-diphenylethanol

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

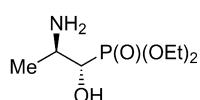
 $[\alpha]_D^{20} = +102.9 (c\ 2, \text{CH}_2\text{Cl}_2)$ Source of chirality: (*R*)-(−)-phenylglycinolAbsolute configuration: (*R,R*) $Ee = 100\%$  $[\alpha]_D^{20} = -15.2 (c\ 1.46, \text{CHCl}_3)$ Source of chirality: (*S*)-1-phenylethylamineAbsolute configuration: (*1S,2R,1'S*) $C_{15}H_{24}NO_4P$ Diethyl (*S*)-hydroxy{(*R*)-1-[(*S*)-1-phenylethyl]aziridin-2-yl}methylphosphonate $Ee = 100\%$  $[\alpha]_D^{20} = -42.7 (c\ 1.27, \text{CHCl}_3)$ Source of chirality: (*S*)-1-phenylethylamineAbsolute configuration: (*1R,2R,1'S*) $C_{15}H_{24}NO_4P$ Diethyl (*R*)-hydroxy{(*R*)-1-[(*S*)-1-phenylethyl]aziridin-2-yl}methylphosphonate $Ee = 100\%$  $[\alpha]_D^{20} = -54.7 (c\ 1.06, \text{CHCl}_3)$ Source of chirality: (*S*)-1-phenylethylamineAbsolute configuration: (*1S,2S,1'S*) $C_{15}H_{24}NO_4P$ Diethyl (*S*)-hydroxy{(*S*)-1-[(*S*)-1-phenylethyl]aziridin-2-yl}methylphosphonate



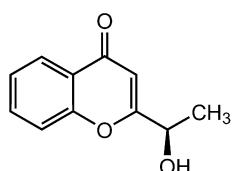
Ee = 100%

 $[\alpha]_D^{20} = +37.8$  (*c* 1.04, CHCl<sub>3</sub>)Source of chirality: (*S*)-1-phenylethylamineAbsolute configuration: (1*S*,2*R*)Diethyl (1*S*,2*R*)-2-acetamido-1-hydroxypropylphosphonate

Ee = 100%

 $[\alpha]_D^{20} = -19.4$  (*c* 0.69, CHCl<sub>3</sub>)Source of chirality: (*R*)-1-phenylethylamineAbsolute configuration: (1*S*,2*S*)Diethyl (1*S*,2*S*)-2-acetamido-1-hydroxypropylphosphonate

Ee = 100%

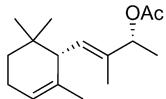
 $[\alpha]_D^{20} = +5.9$  (*c* 1.08, CH<sub>3</sub>OH)Source of chirality: (*S*)-1-phenylethylamineAbsolute configuration: (1*S*,2*R*)Diethyl (1*S*,2*R*)-2-amino-1-hydroxypropylphosphonate

Ee = 90%

 $[\alpha]_D^{22} = +57.55$  (*c* 0.9, CHCl<sub>3</sub>)

Source of chirality: asymmetric enzyme-catalysed reduction

Absolute configuration: (*R*)2-[(*R*)-1-Hydroxyethyl]chromen-4-one



Ee = 98%

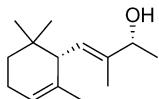
$[\alpha]_D^{24} = -203.1$  (*c* 1.05, CHCl<sub>3</sub>)

Source of chirality: lipase-mediated transesterification

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

C<sub>16</sub>H<sub>26</sub>O<sub>2</sub>

(*R,E*)-3-Methyl-4-((*S*)-2,6,6-trimethyl cyclohex-2-enyl)but-3-en-2-yl acetate



Ee = 98%

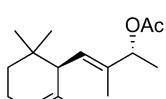
$[\alpha]_D^{24} = -321.5$  (*c* 1.08, CHCl<sub>3</sub>)

Source of chirality: lipase-mediated transesterification

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

C<sub>14</sub>H<sub>24</sub>O

(*R,E*)-3-Methyl-4-((*S*)-2,6,6-trimethyl cyclohex-2-enyl)but-3-en-2-ol



Ee = 94%

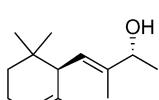
$[\alpha]_D^{24} = +278.8$  (*c* 1.10, CHCl<sub>3</sub>)

Source of chirality: lipase-mediated transesterification

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

C<sub>16</sub>H<sub>26</sub>O<sub>2</sub>

(*R,E*)-3-Methyl-4-((*R*)-2,6,6-trimethyl cyclohex-2-enyl)but-3-en-2-yl acetate



Ee = 94%

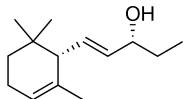
$[\alpha]_D^{24} = +308.3$  (*c* 0.95, CHCl<sub>3</sub>)

Source of chirality: lipase-mediated transesterification

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

C<sub>14</sub>H<sub>24</sub>O

(*R,E*)-3-Methyl-4-((*R*)-2,6,6-trimethyl cyclohex-2-enyl)but-3-en-2-ol



Ee = 98%

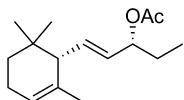
$[\alpha]_D^{24} = -289.3$  (*c* 1.21, CHCl<sub>3</sub>)

Source of chirality: lipase-mediated transesterification

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

C<sub>14</sub>H<sub>24</sub>O

(*R,E*)-1-((*S*)-2,6,6-Trimethyl cyclohex-2-enyl)pent-1-en-3-ol



Ee = 98%

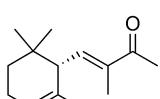
$[\alpha]_D^{24} = -178.5$  (*c* 1.14, CHCl<sub>3</sub>)

Source of chirality: lipase-mediated transesterification

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

C<sub>16</sub>H<sub>26</sub>O<sub>2</sub>

(*R,E*)-1-((*S*)-2,6,6-Trimethyl cyclohex-2-enyl)pent-1-en-3-ol



Ee = 98%

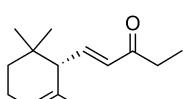
$[\alpha]_D^{24} = -450$  (*c* 1.31, CHCl<sub>3</sub>)

Source of chirality: lipase-mediated transesterification

Absolute configuration: (2*S*)

C<sub>14</sub>H<sub>22</sub>O

(*S,E*)-3-Methyl-4-(2,6,6-trimethyl cyclohex-2-enyl)but-3-en-2-one



Ee = 98%

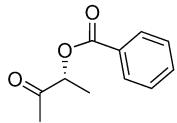
$[\alpha]_D^{24} = -397.1$  (*c* 1.20, CHCl<sub>3</sub>)

Source of chirality: lipase-mediated transesterification

Absolute configuration: (2*S*)

C<sub>14</sub>H<sub>22</sub>O

(*S,E*)-1-(2,6,6-Trimethyl cyclohex-2-enyl)pent-1-en-3-one



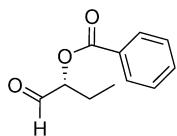
C<sub>11</sub>H<sub>12</sub>O<sub>3</sub>  
(R)-3-Oxobutan-2-yl benzoate

Ee = 93%

[ $\alpha$ ]<sub>D</sub><sup>24</sup> = -33.1 (*c* 1.16, CHCl<sub>3</sub>)

Source of chirality: lipase-mediated transesterification

Absolute configuration: (2*R*)



C<sub>11</sub>H<sub>12</sub>O<sub>3</sub>  
(R)-1-Oxobutan-2-yl benzoate

Ee = 95%

[ $\alpha$ ]<sub>D</sub><sup>24</sup> = +41.0 (*c* 1.0, CHCl<sub>3</sub>)

Source of chirality: lipase-mediated transesterification

Absolute configuration: (2*R*)