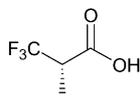


Stereochemistry abstracts

Petr Beier, Alexandra M. Z. Slawin and David O'Hagan\*

*Tetrahedron: Asymmetry 15 (2004) 2447*



$C_4H_5O_2F_3$

(2*S*)-3,3,3-Trifluoro-2-methylpropanoic acid

$E_e > 98\%$

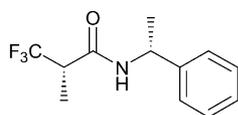
$[\alpha]_D^{19} = -0.8$  ( $c$  1.23, MeOH)

Source of chirality: lipase resolution

Absolute configuration: (2*S*)

Petr Beier, Alexandra M. Z. Slawin and David O'Hagan\*

*Tetrahedron: Asymmetry 15 (2004) 2447*



$C_{12}H_{14}OF_3N$

(2*S*)-3,3,3-Trifluoro-2-methyl-*N*-[(1*R*)-1-phenyl]-propanamide

$D_e = 100\%$

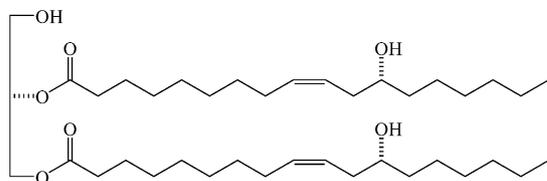
$[\alpha]_D^{25} = +88.7$  ( $c$  0.345,  $CHCl_3$ )

Source of chirality: (1*R*)-1-phenylethylamine and (2*S*)-3,3,3-trifluoro-2-methylpropanoic acid

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

Iwao Hachiya, Akihisa Makino, Makoto Shimizu,\* Masatsugu Akita and Takashi Hamaguchi

*Tetrahedron: Asymmetry 15 (2004) 2451*



$C_{39}H_{72}O_7$

2,3-Di[(12*R*)-12-benzoyloxy-*cis*-9-octadecenoyl]-*sn*-glycerol

$D_e = 93.0\%$  based on the  $d_e$  of its tribenzoate ester

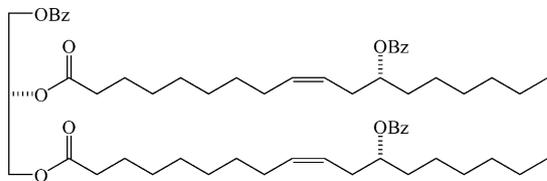
$[\alpha]_D^{24} = +4.45$  ( $c$  0.245,  $CHCl_3$ )

Source of chirality: enzymatic hydrolysis

Absolute configuration: *R,R*

Iwao Hachiya, Akihisa Makino, Makoto Shimizu,\* Masatsugu Akita and Takashi Hamaguchi

*Tetrahedron: Asymmetry 15 (2004) 2451*



$C_{60}H_{84}O_{10}$

1-Benzoyl-2,3-di[(12*R*)-12-benzoyloxy-*cis*-9-octadecenoyl]-*sn*-glycerol

$D_e = 93.0\%$  (chiral HPLC)

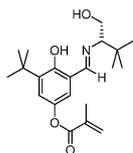
$[\alpha]_D^{23} = +11.3$  ( $c$  0.336,  $CHCl_3$ )

Source of chirality: enzymatic hydrolysis

Absolute configuration: *R,R*

Alessandro Barbarini, Raimondo Maggi, Michele Muratori,  
Giovanni Sartori\* and Raffaella Sartorio

*Tetrahedron: Asymmetry 15 (2004) 2467*



$C_{21}H_{31}NO_4$

(*S*)-3-*tert*-Butyl-4-hydroxy-5-[(1-*tert*-butyl-2-hydroxy-ethylimino)-methyl]-phenyl methacrylate

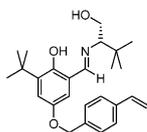
$[\alpha]_D^{20} = -4.1$  (*c* 1, EtOH)

Source of chirality: (*S*)-*tert*-leucinol

Absolute configuration: *S*

Alessandro Barbarini, Raimondo Maggi, Michele Muratori,  
Giovanni Sartori\* and Raffaella Sartorio

*Tetrahedron: Asymmetry 15 (2004) 2467*



$C_{26}H_{35}NO_3$

(*S*)-2-[*N*-3-*tert*-Butyl-5-(*p*-vinylbenzyloxy)salicyden]amino-3,3-dimethyl-1-butanol

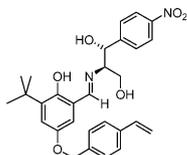
$[\alpha]_D^{20} = -6.5$  (*c* 1, EtOH)

Source of chirality: (*S*)-*tert*-leucinol

Absolute configuration: *S*

Alessandro Barbarini, Raimondo Maggi, Michele Muratori,  
Giovanni Sartori\* and Raffaella Sartorio

*Tetrahedron: Asymmetry 15 (2004) 2467*



$C_{29}H_{32}N_2O_6$

(1'*R*,2'*R*)-2-[*N*-3-*tert*-Butyl-5-(*p*-vinylbenzyloxy)salicyden]amino-1'-(*p*-nitrophenyl)-1',3'-propanediol

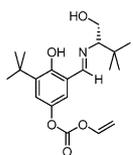
$[\alpha]_D^{20} = -107.5$  (*c* 1, EtOH)

Source of chirality: (1*R*,2*R*)-2-amino-1-(4-nitrophenyl)-1,3-propanediol

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

Alessandro Barbarini, Raimondo Maggi, Michele Muratori,  
Giovanni Sartori\* and Raffaella Sartorio

*Tetrahedron: Asymmetry 15 (2004) 2467*



$C_{20}H_{29}NO_5$

(*S*)-3-*tert*-Butyl-4-hydroxy-5-[(1-*tert*-butyl-2-hydroxy-ethylimino)-methyl]-phenyl vinyl carbonate

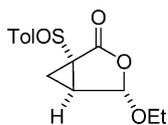
$[\alpha]_D^{20} = -4.0$  (*c* 1, EtOH)

Source of chirality: (*S*)-*tert*-leucinol

Absolute configuration: *S*

Jose Luis García Ruano,\* Cristina Fajardo, M. Rosario Martín,  
Wanda Midura and Marian Mikołajczyk\*

*Tetrahedron: Asymmetry 15 (2004) 2475*



$C_{14}H_{16}O_4S$

(1*S*,4*S*,5*R*,*S*<sub>5</sub>)-4-Ethoxy-1-[(4-methylphenyl)sulfinyl]-3-oxabicyclo[3.1.0]hexan-2-one

Ee = 100%

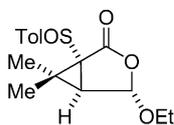
$[\alpha]_D = +310.1$  (*c* 0.25,  $CHCl_3$ )

Source of chirality: diastereoselective synthesis

Absolute configuration (1*S*,4*S*,5*R*,*S*<sub>5</sub>)

Jose Luis García Ruano,\* Cristina Fajardo, M. Rosario Martín,  
Wanda Midura and Marian Mikołajczyk\*

*Tetrahedron: Asymmetry 15 (2004) 2475*



$C_{16}H_{20}O_4S$

(1*R*,4*S*,5*R*,*S*<sub>5</sub>)-4-Ethoxy-6,6-dimethyl-1-[(4-methylphenyl)sulfinyl]-3-oxabicyclo[3.1.0]hexan-2-one

Ee = 100%

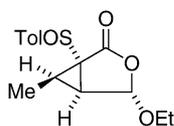
$[\alpha]_D = +114.6$  (*c* 0.25,  $CHCl_3$ )

Source of chirality: diastereoselective synthesis

Absolute configuration (1*R*,4*S*,5*R*,*S*<sub>5</sub>)

Jose Luis García Ruano,\* Cristina Fajardo, M. Rosario Martín,  
Wanda Midura and Marian Mikołajczyk\*

*Tetrahedron: Asymmetry 15 (2004) 2475*



$C_{15}H_{18}O_4S$

(1*S*,4*S*,5*R*,6*R*,*S*<sub>5</sub>)-4-Ethoxy-6-methyl-1-[(4-methylphenyl)sulfinyl]-3-oxabicyclo[3.1.0]hexan-2-one

Ee = 100%

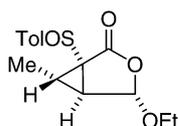
$[\alpha]_D = +231.0$  (*c* 0.5, acetone)

Source of chirality: diastereoselective synthesis

Absolute configuration (1*R*,4*S*,5*R*,6*R*,*S*<sub>5</sub>)

Jose Luis García Ruano,\* Cristina Fajardo, M. Rosario Martín,  
Wanda Midura and Marian Mikołajczyk\*

*Tetrahedron: Asymmetry 15 (2004) 2475*



$C_{15}H_{18}O_4S$

(1*S*,4*S*,5*R*,6*S*,*S*<sub>5</sub>)-4-Ethoxy-6-methyl-1-[(4-methylphenyl)sulfinyl]-3-oxabicyclo[3.1.0]hexan-2-one

Ee = 100%

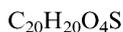
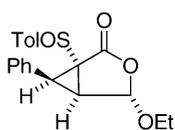
$[\alpha]_D = +137.7$  (*c* 0.2, acetone)

Source of chirality: diastereoselective synthesis

Absolute configuration (1*S*,4*S*,5*R*,6*S*,*S*<sub>5</sub>)

Jose Luis García Ruano,\* Cristina Fajardo, M. Rosario Martín,  
Wanda Midura and Marian Mikołajczyk\*

*Tetrahedron: Asymmetry 15 (2004) 2475*



(1*S*,4*S*,5*R*,6*R*,*S*<sub>5</sub>)-4-Ethoxy-6-phenyl-1-[(4-methylphenyl)sulfinyl]-3-oxabicyclo[3.1.0]hexan-2-one

Ee = 100%

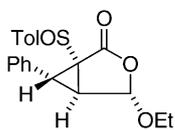
$[\alpha]_D = -37.7$  (*c* 0.25,  $CHCl_3$ )

Source of chirality: diastereoselective synthesis

Absolute configuration (1*S*,4*S*,5*R*,6*R*,*S*<sub>5</sub>)

Jose Luis García Ruano,\* Cristina Fajardo, M. Rosario Martín,  
Wanda Midura and Marian Mikołajczyk\*

*Tetrahedron: Asymmetry 15 (2004) 2475*



(1*S*,4*S*,5*R*,6*S*,*S*<sub>5</sub>)-4-Ethoxy-6-phenyl-1-[(4-methylphenyl)sulfinyl]-3-oxabicyclo[3.1.0]hexan-2-one

Ee = 100%

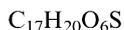
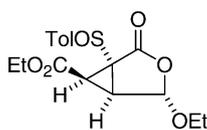
$[\alpha]_D = +117.2$  (*c* 0.25,  $CHCl_3$ )

Source of chirality: diastereoselective synthesis

Absolute configuration (1*S*,4*S*,5*R*,6*S*,*S*<sub>5</sub>)

Jose Luis García Ruano,\* Cristina Fajardo, M. Rosario Martín,  
Wanda Midura and Marian Mikołajczyk\*

*Tetrahedron: Asymmetry 15 (2004) 2475*



Ethyl (1*R*,4*S*,5*R*,6*S*,*S*<sub>5</sub>)-4-ethoxy-1-[(4-methylphenyl)sulfinyl]-2-oxo-3-oxabicyclo[3.1.0]hexan-6-carboxylate

Ee = 100%

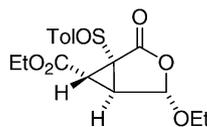
$[\alpha]_D = +80.1$  (*c* 0.85, acetone)

Source of chirality: diastereoselective synthesis

Absolute configuration (1*R*,4*S*,5*R*,6*S*,*S*<sub>5</sub>)

Jose Luis García Ruano,\* Cristina Fajardo, M. Rosario Martín,  
Wanda Midura and Marian Mikołajczyk\*

*Tetrahedron: Asymmetry 15 (2004) 2475*



Ethyl (1*R*,4*S*,5*R*,6*R*,*S*<sub>5</sub>)-4-ethoxy-1-[(4-methylphenyl)sulfinyl]-2-oxo-3-oxabicyclo[3.1.0]hexan-6-carboxylate

Ee = 100%

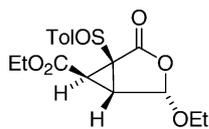
$[\alpha]_D = +139.6$  (*c* 0.25, acetone)

Source of chirality: diastereoselective synthesis

Absolute configuration (1*R*,4*S*,5*R*,6*R*,*S*<sub>5</sub>)

Jose Luis García Ruano,\* Cristina Fajardo, M. Rosario Martín,  
Wanda Midura and Marian Mikołajczyk\*

*Tetrahedron: Asymmetry 15 (2004) 2475*



$C_{17}H_{20}O_6S$

Ethyl (1*S*,4*S*,5*R*,6*S*,*S*<sub>5</sub>)-4-ethoxy-1-[(4-methylphenyl)sulfinyl]-2-oxo-3-oxabicyclo[3.1.0]hexan-6-carboxylate

$E_e = 100\%$

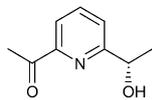
$[\alpha]_D^{25} = +507.8$  (*c* 0.95,  $CHCl_3$ )

Source of chirality: diastereoselective synthesis

Absolute configuration (1*S*,4*S*,5*R*,6*S*,*S*<sub>5</sub>)

Gábor Sztzker, Ildikó Móczár, Pál Kolonits, Lajos Novák,  
Péter Huszthy\* and László Poppe\*

*Tetrahedron: Asymmetry 15 (2004) 2483*



$C_9H_{11}NO_2$

(*S*)-1-[6-(1-Hydroxyethyl)pyridin-2-yl]ethanone

$E_e > 98\%$  (by GC on Beta-DEX 120 column)

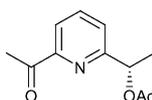
$[\alpha]_D^{25} = -62.0$  (*c* 2.0, ethanol)

Source of chirality: lipase-catalyzed kinetic resolution

Absolute configuration: *S*

Gábor Sztzker, Ildikó Móczár, Pál Kolonits, Lajos Novák,  
Péter Huszthy\* and László Poppe\*

*Tetrahedron: Asymmetry 15 (2004) 2483*



$C_{11}H_{13}NO_3$

(*S*)-1-[6-(1-Acetoxyethyl)pyridin-2-yl]ethanone

$E_e > 98\%$  (by GC on Beta-DEX 120 column)

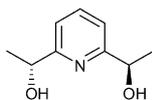
$[\alpha]_D^{25} = -75.8$  (*c* 2.0, ethanol)

Source of chirality: lipase-catalyzed kinetic resolution

Absolute configuration: *S*

Gábor Sztzker, Ildikó Móczár, Pál Kolonits, Lajos Novák,  
Péter Huszthy\* and László Poppe\*

*Tetrahedron: Asymmetry 15 (2004) 2483*



$C_{11}H_{13}NO_2$

(*R,R*)-2,6-Bis(1-hydroxyethyl)pyridine

$E_e > 98\%$  (by GC on HP Chiral column)

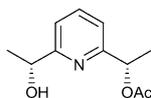
$[\alpha]_D^{25} = +70.0$  (*c* 2.0, ethanol)

Source of chirality: lipase-catalyzed kinetic resolution

Absolute configuration: *R,R*

Gábor Szatzker, Ildikó Móczár, Pál Kolonits, Lajos Novák,  
Péter Huszthy\* and László Poppe\*

*Tetrahedron: Asymmetry 15 (2004) 2483*



C<sub>13</sub>H<sub>15</sub>NO<sub>3</sub>

(*S,R*)-1-[6-(1-Hydroxyethyl)-pyridin-2-yl]ethyl acetate

Ee >98% (by GC on HP Chiral column)

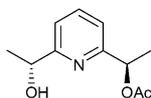
$[\alpha]_D^{25} = -49.8$  (c 2.0, ethanol)

Source of chirality: lipase-catalyzed asymmetric hydrolysis

Absolute configuration: *S,R*

Gábor Szatzker, Ildikó Móczár, Pál Kolonits, Lajos Novák,  
Péter Huszthy\* and László Poppe\*

*Tetrahedron: Asymmetry 15 (2004) 2483*



C<sub>13</sub>H<sub>15</sub>NO<sub>3</sub>

(*R,R*)-1-[6-(1-Hydroxyethyl)-pyridin-2-yl]ethyl acetate

Ee >98% (by GC on HP Chiral column)

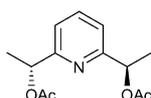
$[\alpha]_D^{25} = +138.4$  (c 2.0, ethanol)

Source of chirality: lipase-catalyzed kinetic resolution

Absolute configuration: *R,R*

Gábor Szatzker, Ildikó Móczár, Pál Kolonits, Lajos Novák,  
Péter Huszthy\* and László Poppe\*

*Tetrahedron: Asymmetry 15 (2004) 2483*



C<sub>13</sub>H<sub>15</sub>NO<sub>3</sub>

(*R,R*)-2,6-Bis(1-acetoxyethyl)pyridine

Ee >98% (by GC on HP Chiral column after hydrolysis)

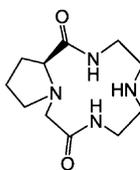
$[\alpha]_D^{25} = +182.6$  (c 2.0, ethanol)

Source of chirality: lipase-catalyzed kinetic resolution

Absolute configuration: *R,R*

Xuemei Yang, Xiaojun Wu, Maohai Fang, Quan Yuan and Enqin Fu\*

*Tetrahedron: Asymmetry 15 (2004) 2491*



C<sub>11</sub>H<sub>20</sub>N<sub>4</sub>O<sub>2</sub>

(12*S*)-1,4,7,10-Tetraazadicyclo[10.3.0]pentadecane-3,11-dione

Ee = 100%

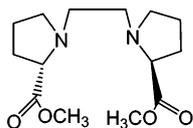
$[\alpha]_D^{20} = -18.0$  (c 0.5, MeOH)

Source of chirality: (–)-proline

Absolute configuration: (12*S*)

Xuemei Yang, Xiaojun Wu, Maohai Fang, Quan Yuan and Enqin Fu\*

*Tetrahedron: Asymmetry 15 (2004) 2491*



$C_{14}H_{24}N_2O_4$

1,2-Bis[(2*S*)-2-carbomethoxy-1-pyrrolidinyl]ethane

Ee = 100%

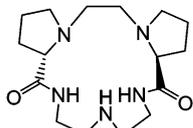
$[\alpha]_D^{20} = -138.0$  (*c* 4.0, H<sub>2</sub>O)

Source of chirality: (-)-proline

Absolute configuration: (2*S*)

Xuemei Yang, Xiaojun Wu, Maohai Fang, Quan Yuan and Enqin Fu\*

*Tetrahedron: Asymmetry 15 (2004) 2491*



$C_{16}H_{29}N_5O_2$

(8*S*,18*S*)-1,4,10,13,16-Pentaaza-tricyclo[16.3.0.0<sup>4,8</sup>]heneicosane-9,17-dione

Ee = 100%

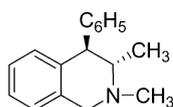
$[\alpha]_D^{20} = -234.8$  (*c* 1.0, MeOH)

Source of chirality: (-)-proline

Absolute configuration: (8*S*,18*S*)

Agata Głuszyńska, Iwona Maćkowska, Maria D. Rozwadowska\* and Wiesława Sienniak

*Tetrahedron: Asymmetry 15 (2004) 2499*



$C_{17}H_{19}N$

(3*S*,4*R*)-2,3-Dimethyl-4-phenyl-1,2,3,4-tetrahydroisoquinoline

Ee = 100%

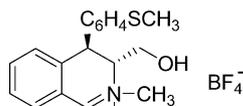
$[\alpha]_D = -71.3$  (*c* 0.96, MeOH)

Source of chirality: (3*R*,4*R*)-3-hydroxymethyl-2-methyl-4-(4-methylthiophenyl)-1,2,3,4-tetrahydroisoquinoline

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

Agata Głuszyńska, Iwona Maćkowska, Maria D. Rozwadowska\* and Wiesława Sienniak

*Tetrahedron: Asymmetry 15 (2004) 2499*



$C_{18}H_{20}BF_4NOS$

(3*R*,4*R*)-3-Hydroxymethyl-2-methyl-4-(4-methylthiophenyl)-3,4-dihydroisoquinolinium tetrafluoroborate

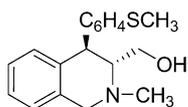
Ee = 100%

$[\alpha]_D = -285.2$  (*c* 0.5, MeOH)

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

Agata Głuszyńska, Iwona Maćkowska, Maria D. Rozwadowska\* and  
Wiesława Sienniak

*Tetrahedron: Asymmetry 15 (2004) 2499*



C<sub>18</sub>H<sub>21</sub>NOS

(3*R*,4*R*)-3-Hydroxymethyl-2-methyl-4-(4-methylthiophenyl)-  
1,2,3,4-tetrahydroisoquinoline

Ee = 100%

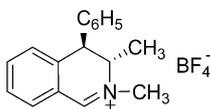
[α]<sub>D</sub> = -118.5 (c 0.98, MeOH)

Source of chirality: (3*R*,4*R*)-3-hydroxymethyl-  
4-(4-methylthiophenyl)-1,2,3,4-  
tetrahydroisoquinoline

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

Agata Głuszyńska, Iwona Maćkowska, Maria D. Rozwadowska\* and  
Wiesława Sienniak

*Tetrahedron: Asymmetry 15 (2004) 2499*



C<sub>17</sub>H<sub>18</sub>NBF<sub>4</sub>

(3*S*,4*R*)-2,3-Dimethyl-4-phenyl-3,4-dihydroisoquinolinium tetrafluoroborate

Ee = 100%

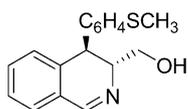
[α]<sub>D</sub> = -148.3 (c 1, CHCl<sub>3</sub>)

Source of chirality: (3*S*,4*R*)-2,3-dimethyl-  
4-phenyl-1,2,3,4-tetrahydroisoquinoline

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

Agata Głuszyńska, Iwona Maćkowska, Maria D. Rozwadowska\* and  
Wiesława Sienniak

*Tetrahedron: Asymmetry 15 (2004) 2499*



C<sub>17</sub>H<sub>17</sub>NOS

(3*R*,4*R*)-3-Hydroxymethyl-4-(4-methylthiophenyl)-3,4-dihydroisoquinoline

Ee = 100%

[α]<sub>D</sub> = -100.4 (c 0.56, MeOH)

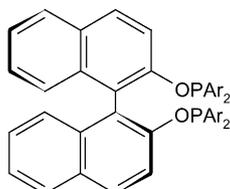
[α]<sub>D</sub> = +64.4 (c 0.25, CHCl<sub>3</sub>)

Source of chirality: (3*R*,4*R*)-3-hydroxymethyl-4-  
(4-methylthiophenyl)-1,2,3,4-tetrahydroisoquinoline

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

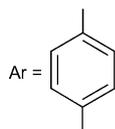
Csaba Hegedüs, József Madarász, Ildikó Gergely, Áron Szöllösy,  
Axel Monsees, Thomas Riermeier and József Bakos\*

*Tetrahedron: Asymmetry 15 (2004) 2507*



C<sub>48</sub>H<sub>40</sub>O<sub>2</sub>P<sub>2</sub>

(*S*)-2,2'-Bis{[di(4-methylphenyl)phosphinyl]oxy}-1,1'-binaphthyl



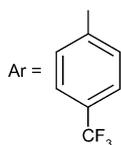
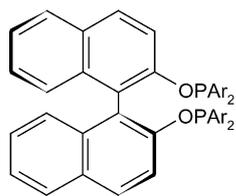
[α]<sub>D</sub><sup>20</sup> = -32.6 (c 1.0, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality: (*S*)-(-)-1,1'-bi-2-naphthol

Absolute configuration: *S*

Csaba Hegedüs, József Madarász, Ildikó Gergely, Áron Szöllősy,  
Axel Monsees, Thomas Riermeier and József Bakos\*

*Tetrahedron: Asymmetry 15 (2004) 2507*



$$[\alpha]_D^{20} = -11.0 (c 1.0, \text{CH}_2\text{Cl}_2)$$

Source of chirality: (S)-(-)-1,1'-bi-2-naphthol

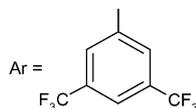
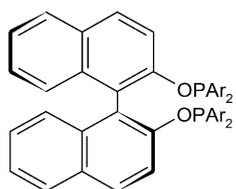
Absolute configuration: S



(S)-2,2'-Bis[di(4-trifluoromethylphenyl)phosphinyl]oxy-1,1'-binaphthyl

Csaba Hegedüs, József Madarász, Ildikó Gergely, Áron Szöllősy,  
Axel Monsees, Thomas Riermeier and József Bakos\*

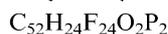
*Tetrahedron: Asymmetry 15 (2004) 2507*



$$[\alpha]_D^{20} = -19.1 (c 1.0, \text{CH}_2\text{Cl}_2)$$

Source of chirality: (S)-(-)-1,1'-bi-2-naphthol

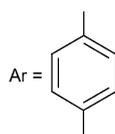
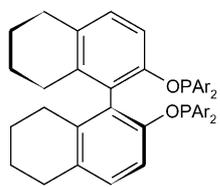
Absolute configuration: S



(S)-2,2'-Bis[di(3,5-bis(trifluoromethyl)phenyl)phosphinyl]oxy-1,1'-binaphthyl

Csaba Hegedüs, József Madarász, Ildikó Gergely, Áron Szöllősy,  
Axel Monsees, Thomas Riermeier and József Bakos\*

*Tetrahedron: Asymmetry 15 (2004) 2507*



$$[\alpha]_D^{20} = -43.5 (c 1.0, \text{CH}_2\text{Cl}_2)$$

Source of chirality: (S)-(-)-1,1'-bi-2-naphthol

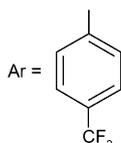
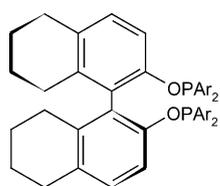
Absolute configuration: S



(S)-2,2'-Bis[di(4-methylphenyl)phosphinyl]oxy-5,5',6,6',7,7',8,8'-octahydro-1,1'-binaphthyl

Csaba Hegedüs, József Madarász, Ildikó Gergely, Áron Szöllősy,  
Axel Monsees, Thomas Riermeier and József Bakos\*

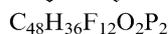
*Tetrahedron: Asymmetry 15 (2004) 2507*



$$[\alpha]_D^{20} = -8.0 (c 1.0, \text{CH}_2\text{Cl}_2)$$

Source of chirality: (S)-(-)-1,1'-bi-2-naphthol

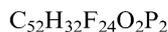
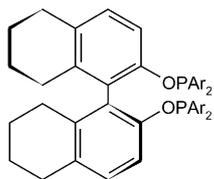
Absolute configuration: S



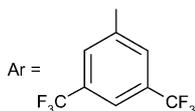
(S)-2,2'-Bis[di(4-trifluoromethylphenyl)phosphinyl]oxy-5,5',6,6',7,7',8,8'-octahydro-1,1'-binaphthyl

Csaba Hegedüs, József Madarász, Ildikó Gergely, Áron Szöllösy,  
Axel Monsees, Thomas Riermeier and József Bakos\*

*Tetrahedron: Asymmetry 15 (2004) 2507*



(*S*)-2,2'-Bis{[di(3,5-di(trifluoromethyl)phenyl)phosphinyl]oxy}-5,5',6,6',7,7',8,8'-octahydro-1,1'-binaphthyl



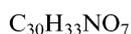
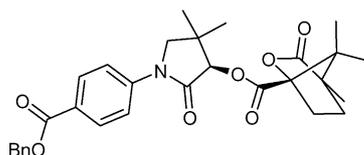
$$[\alpha]_D^{20} = +16.4 (c 1.0, CH_2Cl_2)$$

Source of chirality: (*S*)-(-)-1,1'-bi-2-naphthol

Absolute configuration: *S*

Rhalid Akkari, Monique Calmès,\* Françoise Escale, Julien Iapichella,  
Marc Rolland and Jean Martinez

*Tetrahedron: Asymmetry 15 (2004) 2515*



[1-(4-Benzyloxycarbonylphenyl)-4,4-dimethyl-2-oxopyrrolidin-3-yl] 4,7,7-trimethyl-3-oxo-2-oxabicyclo [2.2.1]-heptane-1-carboxylate

$$[\alpha]_D^{20} = -6 (c 2, \text{acetone})$$

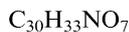
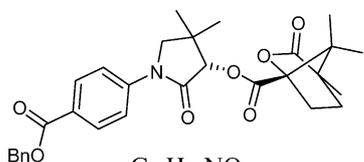
De = 99%

Source of chirality: (*1S*)-camphanic acid chloride

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

Rhalid Akkari, Monique Calmès,\* Françoise Escale, Julien Iapichella,  
Marc Rolland and Jean Martinez

*Tetrahedron: Asymmetry 15 (2004) 2515*



[1-(4-Benzyloxycarbonylphenyl)-4,4-dimethyl-2-oxopyrrolidin-3-yl] 4,7,7-trimethyl-3-oxo-2-oxabicyclo [2.2.1]-heptane-1-carboxylate

$$[\alpha]_D^{20} = -15 (c 2, CH_2Cl_2)$$

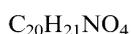
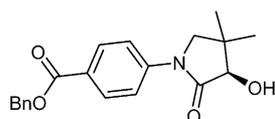
De = 95%

Source of chirality: (*1S*)-camphanic acid chloride

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

Rhalid Akkari, Monique Calmès,\* Françoise Escale, Julien Iapichella,  
Marc Rolland and Jean Martinez

*Tetrahedron: Asymmetry 15 (2004) 2515*



Benzyl 4-(3-hydroxy-4,4-dimethyl-2-oxopyrrolidin-1-yl)benzoate

$$[\alpha]_D^{20} = +16 (c 3, CH_2Cl_2)$$

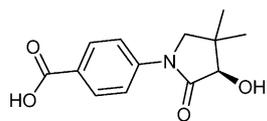
De = 99%

Source of chirality: (*1S*)-camphanic acid chloride

Absolute configuration: (*R*)

Rhalid Akkari, Monique Calmès,\* Françoise Escale, Julien Iapichella,  
Marc Rolland and Jean Martinez

*Tetrahedron: Asymmetry 15 (2004) 2515*



4-(3-Hydroxy-4,4-dimethyl-2-oxopyrrolidin-1-yl) benzoic acid

$[\alpha]_D^{20} = +13$  (*c* 1.5, acetone)

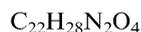
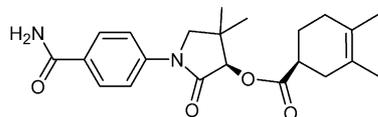
De = 99%

Source of chirality: (1*S*)-camphanic acid chloride

Absolute configuration: (*R*)

Rhalid Akkari, Monique Calmès,\* Françoise Escale, Julien Iapichella,  
Marc Rolland and Jean Martinez

*Tetrahedron: Asymmetry 15 (2004) 2515*



(-)-[1-(4-Carbamoylphenyl)-4,4-dimethyl-2-oxopyrrolidin-3-yl]-3,4-dimethylcyclohex-3-ene-1-carboxylate

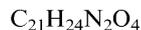
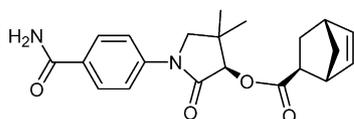
$[\alpha]_D^{20} = -4$  (*c* 1.7, EtOH)

De = 99%

Source of chirality: resin-supported (*R*)-4-(3-hydroxy-4,4-dimethyl-2-oxopyrrolidin-1-yl)benzoic acid (-)-isomer

Rhalid Akkari, Monique Calmès,\* Françoise Escale, Julien Iapichella,  
Marc Rolland and Jean Martinez

*Tetrahedron: Asymmetry 15 (2004) 2515*



[1-(4-Carbamoylphenyl)-4,4-dimethyl-2-oxopyrrolidin-3-yl]bicyclo[2.2.1]hept-5-ene-2-carboxylate

$[\alpha]_D^{20} = -29$  (*c* 1.6, EtOH)

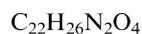
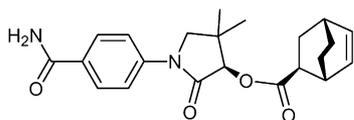
De = 86%

Source of chirality: resin-supported (*R*)-4-(3-hydroxy-4,4-dimethyl-2-oxopyrrolidin-1-yl)benzoic acid

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

Rhalid Akkari, Monique Calmès,\* Françoise Escale, Julien Iapichella,  
Marc Rolland and Jean Martinez

*Tetrahedron: Asymmetry 15 (2004) 2515*



[1-(4-Carbamoylphenyl)-4,4-dimethyl-2-oxopyrrolidin-3-yl]bicyclo[2.2.2]hept-5-ene-2-carboxylate

$[\alpha]_D^{20} = -24$  (*c* 1.5, EtOH)

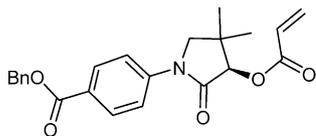
De = 85%

Source of chirality: resin-supported (*R*)-4-(3-hydroxy-4,4-dimethyl-2-oxopyrrolidin-1-yl)benzoic acid

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

Rhalid Akkari, Monique Calmès,\* Françoise Escale, Julien Iapichella,  
Marc Rolland and Jean Martinez

*Tetrahedron: Asymmetry 15 (2004) 2515*



C<sub>23</sub>H<sub>23</sub>NO<sub>5</sub>

Benzyl-4-(3-acryloyloxy-4,4-dimethyl-2-oxopyrrolidin-1-yl)-benzoate

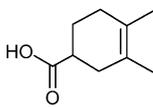
$[\alpha]_D^{20} = +20$  (c 1.4, EtOH)

De = 99%

Absolute configuration: (*R*)

Rhalid Akkari, Monique Calmès,\* Françoise Escale, Julien Iapichella,  
Marc Rolland and Jean Martinez

*Tetrahedron: Asymmetry 15 (2004) 2515*



C<sub>9</sub>H<sub>14</sub>O<sub>2</sub>

3,4-Dimethyl cyclohex-3-ene-carboxylic acid

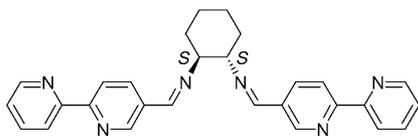
$[\alpha]_D^{20} = -85$  (c 1.8, EtOH)

De = 99%

Source of chirality: resin-supported (*R*)-4-(3-hydroxy-4,4-dimethyl-2-oxopyrrolidin-1-yl)benzoic acid (–)-isomer

Ravi Prabakaran, Roma E. Oakes, Nicholas C. Fletcher\* and  
Mark Nieuwenhuyzen

*Tetrahedron: Asymmetry 15 (2004) 2527*



C<sub>28</sub>H<sub>26</sub>N<sub>6</sub>

*N,N'*-Bis(2,2'-dipyridyl-5-methylene)-(1*S*,2*S*)-1,2-diiminocyclohexane

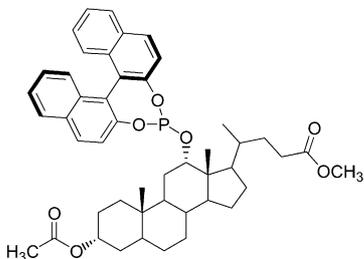
Ee >98%

$[\alpha]_D = +105$  (c, 1.0 g mL<sup>-1</sup> CH<sub>2</sub>Cl<sub>2</sub>)

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

Anna Iuliano,\* Patrizia Scafato\* and Rita Torchia

*Tetrahedron: Asymmetry 15 (2004) 2533*



C<sub>47</sub>H<sub>55</sub>O<sub>7</sub>P

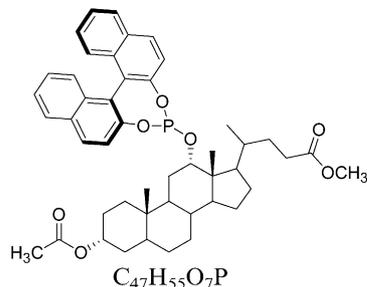
Methyl 3α-acetoxy-12α [(*R*)-(1,1'-binaphthyl-2,2'-diyl)phosphite]-5β-cholan-24-oate

$[\alpha]_D^{25} = -159.2$  (c 1.0, CHCl<sub>3</sub>)

Source of chirality: natural and synthetic

Anna Iuliano,\* Patrizia Scafato\* and Rita Torchia

*Tetrahedron: Asymmetry 15 (2004) 2533*



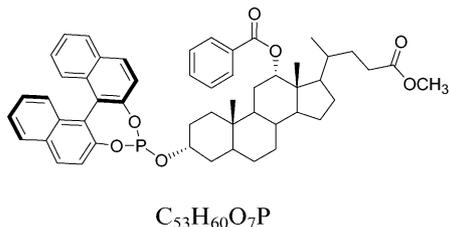
Methyl 3 $\alpha$ -acetoxy-12 $\alpha$  [(S)-(1,1'-binaphthyl-2,2'-diyl)phosphite]-5 $\beta$ -cholan-24-oate

$$[\alpha]_D^{25} = +240.4 (c 1.0, CHCl_3)$$

Source of chirality: natural and synthetic

Anna Iuliano,\* Patrizia Scafato\* and Rita Torchia

*Tetrahedron: Asymmetry 15 (2004) 2533*



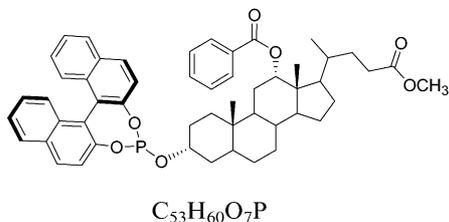
Methyl 3 $\alpha$ -[(R)-(1,1'-binaphthyl-2,2'-diyl)phosphite]-12 $\alpha$ -benzoyloxy-5 $\beta$ -cholan-24-oate

$$[\alpha]_D^{25} = -172 (c 0.7, CH_2Cl_2)$$

Source of chirality: natural and synthetic

Anna Iuliano,\* Patrizia Scafato\* and Rita Torchia

*Tetrahedron: Asymmetry 15 (2004) 2533*



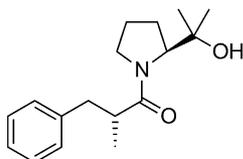
Methyl 3 $\alpha$ -[(S)-(1,1'-binaphthyl-2,2'-diyl)phosphite]-12 $\alpha$ -benzoyloxy-5 $\beta$ -cholan-24-oate

$$[\alpha]_D^{25} = +264 (c 1.15, CH_2Cl_2)$$

Source of chirality: natural and synthetic

Fredrik Andersson and Erik Hedenström\*

*Tetrahedron: Asymmetry 15 (2004) 2539*



(R)-2-Benzyl-1-[(S)-2-(2-hydroxypropan-2-yl)pyrrolidin-1-yl]propan-1-one

Dr >99.5%

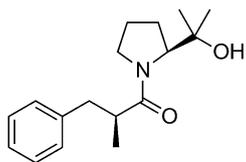
$$[\alpha]_D^{20} = -147 (c 1.39, MeOH)$$

Source of chirality: diastereoselective alkylation

Absolute configuration: R,S

Fredrik Andersson and Erik Hedenström\*

*Tetrahedron: Asymmetry 15 (2004) 2539*



$C_{17}H_{25}NO_2$

(S)-2-Benzyl-1-[(S)-2-(2-hydroxypropan-2-yl)pyrrolidin-1-yl]propan-1-one

Dr >99.5%

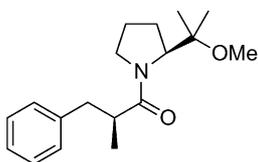
$[\alpha]_D^{20} = +29.9$  (c 1.39, MeOH)

Source of chirality: diastereoselective alkylation

Absolute configuration: S,S

Fredrik Andersson and Erik Hedenström\*

*Tetrahedron: Asymmetry 15 (2004) 2539*



$C_{18}H_{27}NO_2$

(S)-2-Benzyl-1-[(S)-2-(2-methoxypropan-2-yl)pyrrolidin-1-yl]propan-1-one

Dr >99.5%

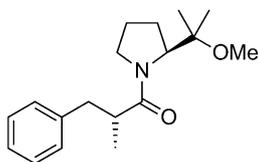
$[\alpha]_D^{20} = +39.5$  (c 1.44, CHCl<sub>3</sub>)

Source of chirality: diastereoselective alkylation

Absolute configuration: S,S

Fredrik Andersson and Erik Hedenström\*

*Tetrahedron: Asymmetry 15 (2004) 2539*



$C_{18}H_{27}NO_2$

(R)-2-Benzyl-1-[(S)-2-(2-methoxypropan-2-yl)pyrrolidin-1-yl]propan-1-one

Dr >99.5%

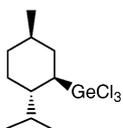
$[\alpha]_D^{20} = -82.5$  (c 1.45, CHCl<sub>3</sub>)

Source of chirality: diastereoselective alkylation

Absolute configuration: R,S

Le Zeng, Dainis Dakternieks, Andrew Duthie,  
V. Tamara Perchyonok and Carl H. Schiesser\*

*Tetrahedron: Asymmetry 15 (2004) 2547*



$C_{10}H_{19}Cl_3Ge$

(1R,2S,5R)-(-)-Menthylgermanium trichloride

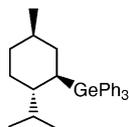
Ee = 99%

$[\alpha]_D^{25} = -51.3$  (c 1, CHCl<sub>3</sub>)

Source of chirality: chiral pool

Le Zeng, Dainis Dakternieks, Andrew Duthie,  
V. Tamara Perchyonok and Carl H. Schiesser\*

*Tetrahedron: Asymmetry 15 (2004) 2547*

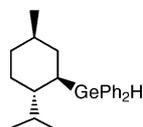


$C_{28}H_{34}Ge$   
(1*R*,2*S*,5*R*)-(-)-Menthyltriphenylgermane

Ee = 99%  
 $[\alpha]_D^{25} = -34.8$  (*c* 1,  $CHCl_3$ )  
Source of chirality: chiral pool

Le Zeng, Dainis Dakternieks, Andrew Duthie,  
V. Tamara Perchyonok and Carl H. Schiesser\*

*Tetrahedron: Asymmetry 15 (2004) 2547*

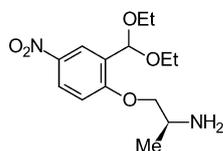


$C_{22}H_{30}Ge$   
(1*R*,2*S*,5*R*)-(-)-Menthyl-diphenylgermane

Ee = 99%  
 $[\alpha]_D^{22} = -32.2$  (*c* 1, toluene)  
Source of chirality: chiral pool

Paola Del Buttero,\* Giorgio Molteni, Antonio Papagni and  
Luciano Miozzo

*Tetrahedron: Asymmetry 15 (2004) 2555*

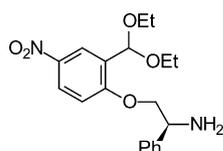


$C_{14}H_{22}N_2O_5$   
2(*S*)-Aminopropyl-[2-(1,1-bis-ethoxymethyl)-4-nitrophenyl]ether

$[\alpha]_D^{25} = +7.1$  (*c* 1.28,  $CHCl_3$ )  
Source of chirality: (*S*)-(+)-2-amino-1-propanol  
Absolute configuration: 2(*S*)

Paola Del Buttero,\* Giorgio Molteni, Antonio Papagni and  
Luciano Miozzo

*Tetrahedron: Asymmetry 15 (2004) 2555*

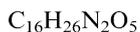
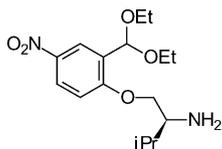


$C_{19}H_{24}N_2O_5$   
2-Phenyl-2(*S*)-aminoethyl-[2-(1,1-bis-ethoxymethyl)-4-nitrophenyl]ether

$[\alpha]_D^{25} = +25.6$  (*c* 0.87,  $CHCl_3$ )  
Source of chirality: (*S*)-(+)-phenylglycinol  
Absolute configuration: 2(*S*)

Paola Del Buttero,\* Giorgio Molteni, Antonio Papagni and Luciano Miozzo

*Tetrahedron: Asymmetry 15 (2004) 2555*



2-Methyl-3(S)-aminobutyl-[2-(1,1-bis-ethoxymethyl)-4-nitrophenyl]ether

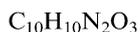
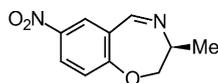
$$[\alpha]_D^{25} = +14.9 (c 0.89, CHCl_3)$$

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

Absolute configuration: 2(S)

Paola Del Buttero,\* Giorgio Molteni, Antonio Papagni and Luciano Miozzo

*Tetrahedron: Asymmetry 15 (2004) 2555*



2,3-Dihydro-3(S)-methyl-7-nitrobenzo[f][1,4]oxazepine

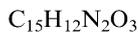
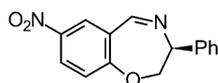
$$[\alpha]_D^{25} = -113.7 (c 1.13, CHCl_3)$$

Source of chirality: the precursor

Absolute configuration: 3(S)

Paola Del Buttero,\* Giorgio Molteni, Antonio Papagni and Luciano Miozzo

*Tetrahedron: Asymmetry 15 (2004) 2555*



2,3-Dihydro-3(S)-phenyl-7-nitrobenzo[f][1,4]oxazepine

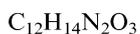
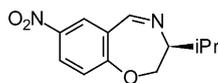
$$[\alpha]_D^{25} = -25.0 (c 1.13, CHCl_3)$$

Source of chirality: the precursor

Absolute configuration: 3(S)

Paola Del Buttero,\* Giorgio Molteni, Antonio Papagni and Luciano Miozzo

*Tetrahedron: Asymmetry 15 (2004) 2555*



2,3-Dihydro-3(S)-isopropyl-7-nitrobenzo[f][1,4]oxazepine

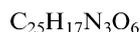
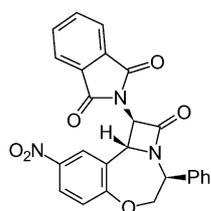
$$[\alpha]_D^{25} = -53.4 (c 0.69, CHCl_3)$$

Source of chirality: the precursor

Absolute configuration: 3(S)

Paola Del Buttero,\* Giorgio Molteni, Antonio Papagni and Luciano Miozzo

*Tetrahedron: Asymmetry 15 (2004) 2555*



1(R)-Phthalimido-1a(R)-2-oxo-3(S)-phenyl-8-nitro-1,1a,3,4-tetrahydro-azetidino[4,1-d][1,4]benzoxazepine

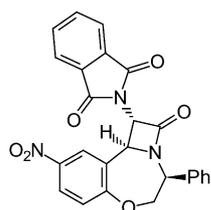
$$[\alpha]_D^{25} = -108.0 \text{ (} c \text{ 0.70, CHCl}_3\text{)}$$

Source of chirality: the precursor

Absolute configuration: (1R,1aR,3S)

Paola Del Buttero,\* Giorgio Molteni, Antonio Papagni and Luciano Miozzo

*Tetrahedron: Asymmetry 15 (2004) 2555*



1(S)-Phthalimido-1a(S)-2-oxo-3(S)-phenyl-8-nitro-1,1a,3,4-tetrahydro-azetidino[4,1-d][1,4]benzoxazepine

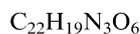
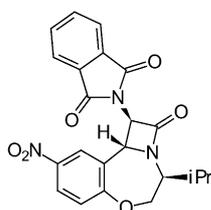
$$[\alpha]_D^{25} = +354.6 \text{ (} c \text{ 0.80, CHCl}_3\text{)}$$

Source of chirality: the precursor

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

Paola Del Buttero,\* Giorgio Molteni, Antonio Papagni and Luciano Miozzo

*Tetrahedron: Asymmetry 15 (2004) 2555*



1(R)-Phthalimido-1a(R)-2-oxo-3(S)-isopropyl-8-nitro-1,1a,3,4-tetrahydro-azetidino[4,1-d][1,4]benzoxazepine

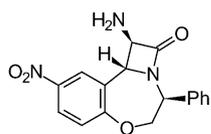
$$[\alpha]_D^{25} = -221.3 \text{ (} c \text{ 1.06, CHCl}_3\text{)}$$

Source of chirality: the precursor

Absolute configuration: (1R,1aR,3S)

Paola Del Buttero,\* Giorgio Molteni, Antonio Papagni and Luciano Miozzo

*Tetrahedron: Asymmetry 15 (2004) 2555*



1(R)-Amino-1a(R)-2-oxo-3(S)-phenyl-8-nitro-1,1a,3,4-tetrahydro-azetidino[4,1-d][1,4]benzoxazepine

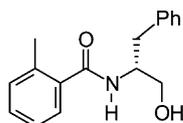
$$[\alpha]_D^{25} = -90.0 \text{ (} c \text{ 0.57, CHCl}_3\text{)}$$

Source of chirality: the precursor

Absolute configuration: (1R,1aR,3S)

Maria Chrzanowska\* and Agnieszka Dreas

*Tetrahedron: Asymmetry 15 (2004) 2561*



$C_{17}H_{19}NO_2$

(2*R*)-2-*o*-Toluamide-3-phenylpropanol

Ee = 100%

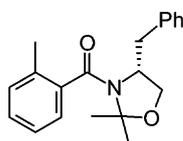
$[\alpha]_D = +36.4$  (*c* 1.055,  $CHCl_3$ )

Source of chirality: (*R*)-2-amino-3-phenylpropanol

Absolute configuration: (2*R*)

Maria Chrzanowska\* and Agnieszka Dreas

*Tetrahedron: Asymmetry 15 (2004) 2561*



$C_{20}H_{23}NO_2$

(4*R*)-2,2-Dimethyl-3-*o*-toluoyl-4-benzyloxazolidine

Ee = 100%

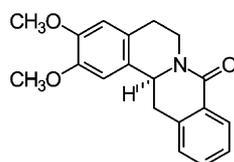
$[\alpha]_D = +32.6$  (*c* 1.115,  $CHCl_3$ )

Source of chirality: (*R*)-2-amino-3-phenylpropanol

Absolute configuration: (4*R*)

Maria Chrzanowska\* and Agnieszka Dreas

*Tetrahedron: Asymmetry 15 (2004) 2561*



$C_{19}H_{19}NO_3$

(13*aS*)-5,6,13,13*a*-Tetrahydro-2,3-dimethoxy-8*H*-dibenzo[*a,g*]quinolizin-8-one

Ee >99%

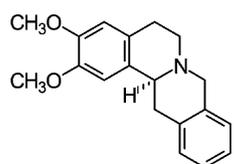
$[\alpha]_D = -413.8$  (*c* 0.359,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: (13*aS*)

Maria Chrzanowska\* and Agnieszka Dreas

*Tetrahedron: Asymmetry 15 (2004) 2561*



$C_{19}H_{21}NO_2$

(13*aS*)-5,8,13,13*a*-Tetrahydro-2,3-dimethoxy-6*H*-dibenzo[*a,g*]quinolizine

Ee >99%

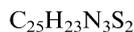
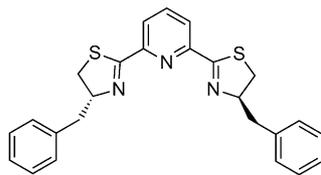
$[\alpha]_D = -285.5$  (*c* 0.51,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: (13*aS*)

Paul Le Maux, Isabelle Abrunhosa, Mathieu Berchel,  
G rard Simonneaux,\* Mihaela Gulea and Serge Masson\*

*Tetrahedron: Asymmetry 15 (2004) 2569*



(*R,R*)-2,6-Bis[4-benzyl-4,5-dihydro-2-thiazolyl]pyridine

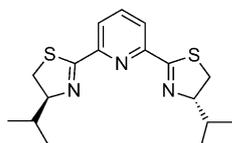
$[\alpha]_D^{20} = -102$  (*c* 1, acetone)

Source of chirality: (*S*)-valinol

Absolute configuration: (*R,R*)

Paul Le Maux, Isabelle Abrunhosa, Mathieu Berchel,  
G rard Simonneaux,\* Mihaela Gulea and Serge Masson\*

*Tetrahedron: Asymmetry 15 (2004) 2569*



(*S,S*)-2,6-Bis[4-isopropyl-4,5-dihydro-2-thiazolyl]pyridine

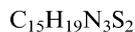
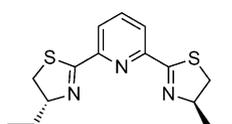
$[\alpha]_D^{20} = -125$  (*c* 1, acetone)

Source of chirality: (*S*)-valinol

Absolute configuration: (*S,S*)

Paul Le Maux, Isabelle Abrunhosa, Mathieu Berchel,  
G rard Simonneaux,\* Mihaela Gulea and Serge Masson\*

*Tetrahedron: Asymmetry 15 (2004) 2569*



(*R,R*)-2,6-Bis[4-ethyl-4,5-dihydro-2-thiazolyl]pyridine

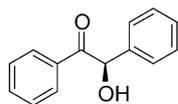
$[\alpha]_D^{20} = +135$  (*c* 1, acetone)

Source of chirality: (*S*)-valinol

Absolute configuration: (*R,R*)

Ayhan S. Demir,\* Haluk Hamamci, Peruze Ayhan, A. Nese Duygu,  
A. Cigdem İgdir and Doga Capanoglu

*Tetrahedron: Asymmetry 15 (2004) 2579*



(*R*)-(-)-2-Hydroxy-1,2-diphenylethan-1-one

Ee >99%

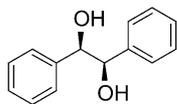
$[\alpha]_D^{25} = -114.5$  (*c* 1.5,  $CH_3COCH_3$ )

Source of chirality: fungal conversion

Absolute configuration: (*R*)

Ayhan S. Demir,\* Haluk Hamamci, Peruze Ayhan, A. Nese Duygu,  
A. Cigdem İgdir and Doga Capanoglu

*Tetrahedron: Asymmetry 15 (2004) 2579*



(*R,R*)-(+)-1,2-Diphenylethane-1,2-diol

Ee = 99%

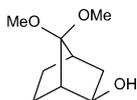
$[\alpha]_D^{25} = +90.3$  (*c* 1, ethanol)

Source of chirality: fungal conversion

Absolute configuration: (*R,R*)

Luciane F. de Oliveira and Valentim E. U. Costa\*

*Tetrahedron: Asymmetry 15 (2004) 2583*



(1*S*,2*R*,4*R*)-7,7-Dimethoxynorbornan-2-*exo*-ol

Ee = >98% (by chiral GC)

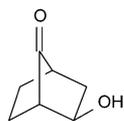
$[\alpha]_D^{20} = -30$  (*c* 1.36, AcOEt)

Source of chirality: enzyme catalyzed transesterification of racemic mixture

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

Luciane F. de Oliveira and Valentim E. U. Costa\*

*Tetrahedron: Asymmetry 15 (2004) 2583*



(1*S*,2*R*,4*R*)-2-*exo*-Hydroxynorbornan-7-one

Ee = >98% (by chiral GC)

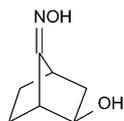
$[\alpha]_D^{20} = +30$  (*c* 1.18, AcOEt)

Source of chirality: enzyme catalyzed transesterification of racemic mixture

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

Luciane F. de Oliveira and Valentim E. U. Costa\*

*Tetrahedron: Asymmetry 15 (2004) 2583*



(1*R*,2*R*,4*R*)-2-*exo*-Hydroxynorbornan-7-one oxime

Ee = >98% (by chiral GC)

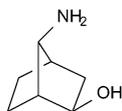
$[\alpha]_D^{20} = +41$  (*c* 1.01, MeOH)

Source of chirality: enzyme catalyzed transesterification of racemic mixture

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

Luciane F. de Oliveira and Valentim E. U. Costa\*

*Tetrahedron: Asymmetry 15 (2004) 2583*



C<sub>7</sub>H<sub>13</sub>NO

(1*R*,2*R*,4*R*)-7-*syn*-Aminonorbornan-2-*exo*-ol

Ee = >98% (by chiral GC)

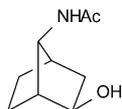
[ $\alpha$ ]<sub>D</sub><sup>20</sup> = +8 (c 1.15, AcOEt)

Source of chirality: enzyme catalyzed transesterification of racemic mixture

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

Luciane F. de Oliveira and Valentim E. U. Costa\*

*Tetrahedron: Asymmetry 15 (2004) 2583*



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

(1*R*,2*R*,4*R*)-7-*syn*-Acetamidonorbornan-2-*exo*-ol

Ee = >98% (by chiral GC)

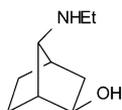
[ $\alpha$ ]<sub>D</sub><sup>20</sup> = +63 (c 1.17, AcOEt)

Source of chirality: enzyme catalyzed transesterification of racemic mixture

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

Luciane F. de Oliveira and Valentim E. U. Costa\*

*Tetrahedron: Asymmetry 15 (2004) 2583*



C<sub>9</sub>H<sub>17</sub>NO

(1*R*,2*R*,4*R*)-7-*syn*-Ethylaminonorbornan-2-*exo*-ol

Ee = >98% (by chiral GC)

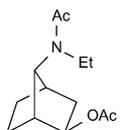
[ $\alpha$ ]<sub>D</sub><sup>20</sup> = +17 (c 1.45, AcOEt)

Source of chirality: enzyme catalyzed transesterification of racemic mixture

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

Luciane F. de Oliveira and Valentim E. U. Costa\*

*Tetrahedron: Asymmetry 15 (2004) 2583*



C<sub>13</sub>H<sub>21</sub>NO<sub>3</sub>

(1*R*,2*R*,4*R*)-7-*syn*-(Acetylethyl)aminonorbornan-2-*exo*-yl acetate

Ee = >98% (by chiral GC)

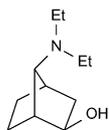
[ $\alpha$ ]<sub>D</sub><sup>20</sup> = -21 (c 1.09, AcOEt)

Source of chirality: enzyme catalyzed transesterification of racemic mixture

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

Luciane F. de Oliveira and Valentim E. U. Costa\*

*Tetrahedron: Asymmetry 15 (2004) 2583*



C<sub>11</sub>H<sub>21</sub>NO

(1*R*,2*R*,4*R*)-7-*syn*-Diethylaminonorbornan-2-*exo*-ol

Ee = >98% (by chiral GC)

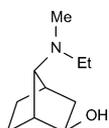
[ $\alpha$ ]<sub>D</sub><sup>20</sup> = +5 (c 1.04, AcOEt)

Source of chirality: enzyme catalyzed transesterification of racemic mixture

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

Luciane F. de Oliveira and Valentim E. U. Costa\*

*Tetrahedron: Asymmetry 15 (2004) 2583*



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

(1*R*,2*R*,4*R*)-7-*syn*-Ethylmethylaminonorbornan-2-*exo*-ol

Ee = >98% (by chiral GC)

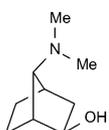
[ $\alpha$ ]<sub>D</sub><sup>20</sup> = +12 (c 1.13, AcOEt)

Source of chirality: enzyme catalyzed transesterification of racemic mixture

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

Luciane F. de Oliveira and Valentim E. U. Costa\*

*Tetrahedron: Asymmetry 15 (2004) 2583*



C<sub>9</sub>H<sub>17</sub>NO

(1*R*,2*R*,4*R*)-7-*syn*-Dimethylaminonorbornan-2-*exo*-ol

Ee = >98% (by chiral GC)

[ $\alpha$ ]<sub>D</sub><sup>20</sup> = +22 (c 1.08, AcOEt)

Source of chirality: enzyme catalyzed transesterification of racemic mixture

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