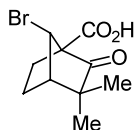


Antonio García Martínez,\* Enrique Teso Vilar, Amelia García Fraile,  
Santiago de la Moya Cerero\* and Beatriz Lora Maroto

*Tetrahedron: Asymmetry* 13 (2002) 1837



$C_{10}H_{13}BrO_3$

7-Bromo-3,3-dimethyl-2-oxonorbornane-1-carboxylic acid

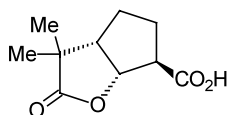
$[\alpha]_D^{20} = -58.6$  (*c* 3.2,  $CHCl_3$ )

Source of chirality: natural (1*S*)-3-*endo*-bromocamphor  
and enantiospecific synthesis

Absolute configuration: 1*R*,7*S*

Antonio García Martínez,\* Enrique Teso Vilar, Amelia García Fraile,  
Santiago de la Moya Cerero\* and Beatriz Lora Maroto

*Tetrahedron: Asymmetry* 13 (2002) 1837



$C_{10}H_{14}O_4$

4,4-Dimethyl-2-oxa-3-oxobicyclo[3.3.0]octane-8-carboxylic acid

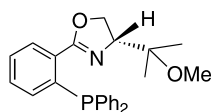
$[\alpha]_D^{20} = -109$  (*c* 0.7, MeOH)

Source of chirality: natural (1*S*)-3-*endo*-bromocamphor  
and stereocontrolled synthesis

Absolute configuration: 1*R*,5*S*,8*R*

Kunio Hiroi\* and Kazuhiro Watanabe

*Tetrahedron: Asymmetry* 13 (2002) 1841



$C_{25}H_{26}NO_2P$

(*R*)-2-Diphenylphosphino-4-(methoxy-*iso*-propyl)-1,3-oxazoline

E.e. = 99%

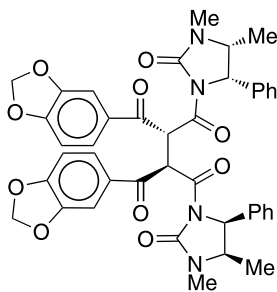
$[\alpha]_D = +32.3$  (*c* 1.28,  $CHCl_3$ )

Source of chirality: D-serine methyl ester hydrochloride

Absolute configuration: *R*

Naoki Kise,\* Azumi Fujimoto and Nasuo Ueda

*Tetrahedron: Asymmetry* 13 (2002) 1845



$C_{42}H_{38}N_4O_{10}$

(2*R*,3*R*)-2,3-Bis(2*H*-benzo[3,4-*d*]1,3-dioxolan-5-ylcarbonyl)-1,4-bis((4*R*,5*S*)-3,4-dimethyl-5-phenyl-2-imidazolidinone)butane-1,4-dione

Ee >99%

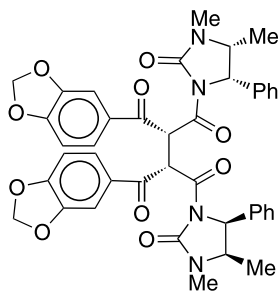
$[\alpha]_D^{20} = -174$  (*c* 1.08,  $CHCl_3$ )

Source of chirality: (4*R*,5*S*)-3,4-dimethyl-5-phenyl-2-imidazolidinone

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

Naoki Kise,\* Azumi Fujimoto and Nasuo Ueda

*Tetrahedron: Asymmetry 13 (2002) 1845*



$C_{42}H_{38}N_4O_{10}$

(2*R*,3*S*)-2,3-Bis(2*H*-benzo[3,4-*d*][1,3-dioxolan-5-ylcarbonyl])-1,4-bis((4*R*,5*S*)-3,4-dimethyl-2-oxo-5-phenylimidazolidinyl)butane-1,4-dione

Ee >99%

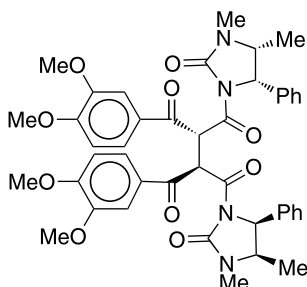
$[\alpha]_D^{20} +236$  (*c* 1.02,  $CHCl_3$ )

Source of chirality: (4*R*,5*S*)-3,4-dimethyl-5-phenyl-2-imidazolidinone

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

Naoki Kise,\* Azumi Fujimoto and Nasuo Ueda

*Tetrahedron: Asymmetry 13 (2002) 1845*



$C_{44}H_{46}N_4O_{10}$

(2*R*,3*R*)-1,4-Bis((4*R*,5*S*)-3,4-dimethyl-2-oxo-5-phenylimidazolidinyl)-2,3-bis((3,4-dimethoxyphenyl)carbonyl)butane-1,4-dione

Ee >99%

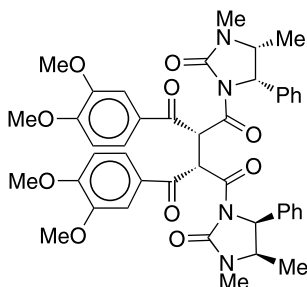
$[\alpha]_D^{20} -175$  (*c* 1.04,  $CHCl_3$ )

Source of chirality: (4*R*,5*S*)-3,4-dimethyl-5-phenyl-2-imidazolidinone

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

Naoki Kise,\* Azumi Fujimoto and Nasuo Ueda

*Tetrahedron: Asymmetry 13 (2002) 1845*



$C_{44}H_{46}N_4O_{10}$

(2*R*,3*S*)-1,4-Bis((4*R*,5*S*)-3,4-dimethyl-2-oxo-5-phenylimidazolidinyl)-2,3-bis((3,4-dimethoxyphenyl)carbonyl)butane-1,4-dione

Ee >99%

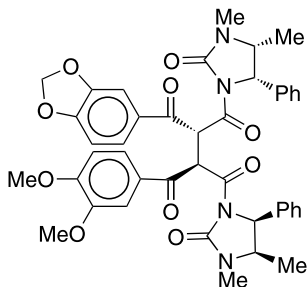
$[\alpha]_D^{20} +179$  (*c* 1.06,  $CHCl_3$ )

Source of chirality: (4*R*,5*S*)-3,4-dimethyl-5-phenyl-2-imidazolidinone

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

Naoki Kise,\* Azumi Fujimoto and Nasuo Ueda

*Tetrahedron: Asymmetry 13 (2002) 1845*



$C_{43}H_{42}N_4O_{10}$

(2*R*,3*R*)-2-(2*H*-benzo[3,4-*d*][1,3-dioxolan-5-ylcarbonyl])-1,4-bis((5*S*,4*R*)-3,4-dimethyl-2-oxo-5-phenylimidazolidinyl)-3-[(3,4-dimethoxyphenyl)carbonyl]butane-1,4-dione

Ee >99%

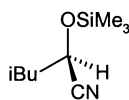
$[\alpha]_D^{20} -142$  (*c* 1.05,  $CHCl_3$ )

Source of chirality: (4*R*,5*S*)-3,4-dimethyl-5-phenyl-2-imidazolidinone

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

Jürgen Roos and Franz Effenberger\*

*Tetrahedron: Asymmetry 13 (2002) 1855*



C<sub>9</sub>H<sub>19</sub>NO<sub>Si</sub>

(*R*)-4-Methyl-2-trimethylsilyloxy-pentanenitrile

Ee = 94%

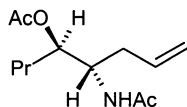
[ $\alpha$ ]<sub>D</sub><sup>20</sup> = +60.5 (*c* 1.1, CHCl<sub>3</sub>)

Source of chirality: enzyme-catalyzed reaction

Absolute configuration: 2*R*

Jürgen Roos and Franz Effenberger\*

*Tetrahedron: Asymmetry 13 (2002) 1855*



C<sub>12</sub>H<sub>21</sub>NO<sub>3</sub>

(4*S*,5*R*)-4-Acetamido-5-acetoxy-1-octene

Ee ≥ 90%

De = 94%

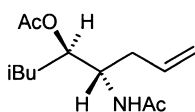
[ $\alpha$ ]<sub>D</sub><sup>20</sup> = +27.4 (*c* 1.0, CHCl<sub>3</sub>)

Source of chirality: Grignard reaction of (*R*)-cyanohydrins

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

Jürgen Roos and Franz Effenberger\*

*Tetrahedron: Asymmetry 13 (2002) 1855*



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

(4*S*,5*R*)-4-Acetamido-5-acetoxy-7-methyl-1-octene

Ee ≥ 94%

De = 96%

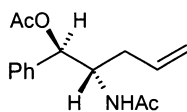
[ $\alpha$ ]<sub>D</sub><sup>20</sup> = +14.0 (*c* 1.67, CHCl<sub>3</sub>)

Source of chirality: Grignard reaction of (*R*)-cyanohydrins

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

Jürgen Roos and Franz Effenberger\*

*Tetrahedron: Asymmetry 13 (2002) 1855*



C<sub>15</sub>H<sub>19</sub>NO<sub>3</sub>

(4*S*,5*R*)-4-Acetamido-5-acetoxy-5-phenyl-1-octene

Ee ≥ 99%

De = 99%

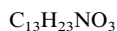
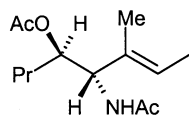
[ $\alpha$ ]<sub>D</sub><sup>20</sup> = -49.6 (*c* 0.5, CHCl<sub>3</sub>)

Source of chirality: Grignard reaction of (*R*)-cyanohydrins

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

Jürgen Roos and Franz Effenberger\*

*Tetrahedron: Asymmetry 13 (2002) 1855*



(4*S*,5*R*)-4-Acetamido-5-acetoxy-3-methyl-2-octene

Ee  $\geq$ 90%

De >99%

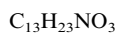
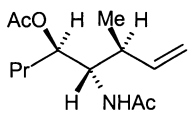
$[\alpha]_D^{20} = +29.5$  (c 0.6,  $CHCl_3$ )

Source of chirality: Grignard reaction of (*R*)-cyanohydrins

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

Jürgen Roos and Franz Effenberger\*

*Tetrahedron: Asymmetry 13 (2002) 1855*



(3*S*,4*S*,5*R*)-4-Acetamido-5-acetoxy-3-methyl-1-octene

Ee  $\geq$ 90%

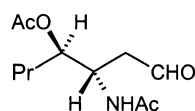
$[\alpha]_D^{20} = +16.4$  (c 2.3,  $CHCl_3$ )

Source of chirality: Grignard reaction of (*R*)-cyanohydrins

Absolute configuration: 3*S*,4*S*,5*R*

Jürgen Roos and Franz Effenberger\*

*Tetrahedron: Asymmetry 13 (2002) 1855*



(3*S*,4*R*)-3-Acetamido-4-acetoxyheptanal

Ee  $\geq$ 90%

De = 94%

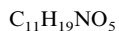
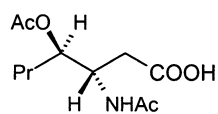
$[\alpha]_D^{20} = +42.6$  (c 1.0,  $CHCl_3$ )

Source of chirality: ozonolysis of acetamido acetoxyalkene

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

Jürgen Roos and Franz Effenberger\*

*Tetrahedron: Asymmetry 13 (2002) 1855*



(3*S*,4*R*)-3-Acetamido-4-acetoxyheptanoic acid

Ee  $\geq$ 90%

De = 95%

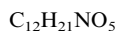
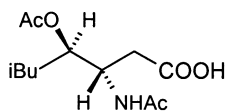
$[\alpha]_D^{20} = +11.1$  (c 0.36,  $CHCl_3$ )

Source of chirality: oxidation of chiral aldehydes

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

Jürgen Roos and Franz Effenberger\*

*Tetrahedron: Asymmetry 13 (2002) 1855*



(3*S*,4*R*)-3-Acetamido-4-acetoxy-6-methylheptanoic acid

Ee  $\geq$ 94%

De = 75%

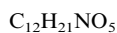
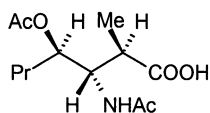
$[\alpha]_D^{20} = +15.0$  (c 0.5,  $CHCl_3$ )

Source of chirality: oxidation of chiral aldehydes

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

Jürgen Roos and Franz Effenberger\*

*Tetrahedron: Asymmetry 13 (2002) 1855*



(2*R*,3*S*,4*R*)-3-Acetamido-4-acetoxy-2-methylheptanoic acid

Ee  $\geq$ 90%

De >95%

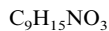
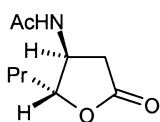
$[\alpha]_D^{20} = -7.25$  (c 0.4, MeOH)

Source of chirality: oxidation of chiral aldehydes

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

Jürgen Roos and Franz Effenberger\*

*Tetrahedron: Asymmetry 13 (2002) 1855*



(4*S*,5*R*)-4-Acetamido-5-propyltetrahydro-2-furanone

Ee  $\geq$ 90%

De >95%

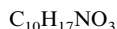
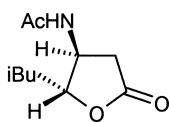
$[\alpha]_D^{20} = -14.4$  (c 0.93,  $CHCl_3$ )

Source of chirality: cyclization of the corresponding chiral acid

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

Jürgen Roos and Franz Effenberger\*

*Tetrahedron: Asymmetry 13 (2002) 1855*



(4*S*,5*R*)-4-Acetamido-5-(2-methylpropyl)tetrahydro-2-furanone

Ee  $\geq$ 94%

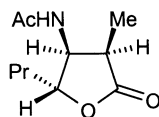
De = 75%

Source of chirality: cyclization of the corresponding chiral acid

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

Jürgen Roos and Franz Effenberger\*

*Tetrahedron: Asymmetry 13 (2002) 1855*



$C_{10}H_{17}NO_3$

(3*R*,4*S*,5*R*)-4-Acetamido-3-methyl-5-propyltetrahydro-2-furanone

Ee  $\geq$ 90%

De >95%

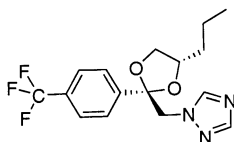
$[\alpha]_D^{20} = +31.5$  (*c* 0.4,  $CHCl_3$ )

Source of chirality: cyclization of the corresponding chiral acid

Absolute configuration: 3*R*,4*S*,5*R*

Katsuhiko Sekimata, Jun Uzawa, Sun-Young Han, Koichi Yoneyama, Yasutomo Takeuchi, Shigeo Yoshida and Tadao Asami\*

*Tetrahedron: Asymmetry 13 (2002) 1875*



$C_{16}H_{18}F_3N_3O_2$

2*R*,4*S*-1-[4-*n*-Propyl-2-(4-trifluoromethylphenyl)-[1,3]dioxolan-2-ylmethyl]-1*H*-[1,2,4]triazole

Ee >99% (by chiral HPLC)

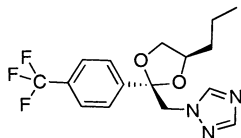
$[\alpha]_D^{27} = -3.1$  (*c* 0.32,  $CHCl_3$ )

Source of chirality: synthesis

Absolute configuration: 2*S*,4*S*

Katsuhiko Sekimata, Jun Uzawa, Sun-Young Han, Koichi Yoneyama, Yasutomo Takeuchi, Shigeo Yoshida and Tadao Asami\*

*Tetrahedron: Asymmetry 13 (2002) 1875*



$C_{16}H_{18}F_3N_3O_2$

2*S*,4*R*-1-[4-*n*-Propyl-2-(4-trifluoromethylphenyl)-[1,3]dioxolan-2-ylmethyl]-1*H*-[1,2,4]triazole

Ee >99% (by chiral HPLC)

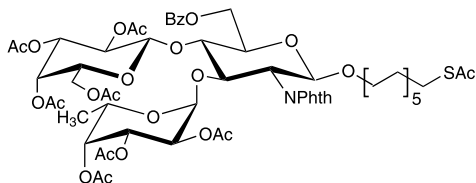
$[\alpha]_D^{27} = -8.9$  (*c* 0.32,  $CHCl_3$ )

Source of chirality: synthesis

Absolute configuration: 2*S*,4*R*

Jesús M. de la Fuente and Soledad Penadés\*

*Tetrahedron: Asymmetry 13 (2002) 1879*



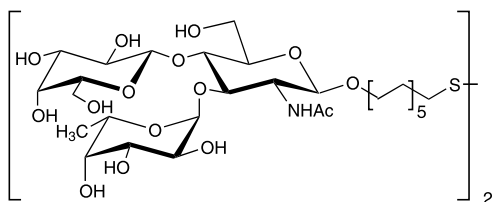
$C_{60}H_{77}NO_{25}S$

11-Thioacetyl-undecyl 2,3,4,6-tetra-*O*-acetyl- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 4)-(2,3,4-tri-*O*-acetyl- $\alpha$ -L-fucopyranosyl)-(1 $\rightarrow$ 3)-6-*O*-benzoyl-2-deoxy-2-phtalimido-1-thio- $\beta$ -D-glucopyranoside

$[\alpha]_D^{23} = -16.6$  (*c* = 1,  $CH_2Cl_2$ )

Jesús M. de la Fuente and Soledad Penadés\*

*Tetrahedron: Asymmetry 13 (2002) 1879*



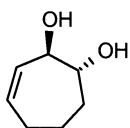
$[\alpha]_{\text{D}}^{23} = -65.4$  ( $c = 1$ , MeOH)

$\text{C}_{62}\text{H}_{112}\text{N}_2\text{O}_{30}\text{S}_2$

11,11'-Dithio bis[undecyl  $\beta$ -galactopyranosyl-(1 $\rightarrow$ 4)- $\alpha$ -L-fucopyranosyl-(1 $\rightarrow$ 3)-2-acetamido-2-deoxy- $\beta$ -D-glucopyranoside]

Claudia Sanfilippo\* and Giovanni Nicolosi

*Tetrahedron: Asymmetry 13 (2002) 1889*



$\text{C}_7\text{H}_{12}\text{O}_2$

(1*R*,2*R*)-Cyclohept-3-ene-1,2-diol

Ee = 79% (by GC on chiral column)

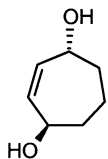
$[\alpha]_{\text{D}} = -32.3$  ( $c$  0.04,  $\text{CHCl}_3$ )

Source of chirality: enzymatic oxidation

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

Claudia Sanfilippo\* and Giovanni Nicolosi

*Tetrahedron: Asymmetry 13 (2002) 1889*



$\text{C}_7\text{H}_{12}\text{O}_2$

(1*R*,4*R*)-Cyclohept-2-ene-1,4-diol

Ee = 79% (by GC on chiral column)

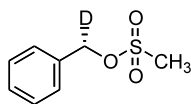
$[\alpha]_{\text{D}} = +54.8$  ( $c$  0.3,  $\text{CHCl}_3$ )

Source of chirality: enzymatic oxidation

Absolute configuration: 1*R*,4*R*

Derek W. Barnett, Michael J. Panigot and Robert W. Curley, Jr.\*

*Tetrahedron: Asymmetry 13 (2002) 1893*



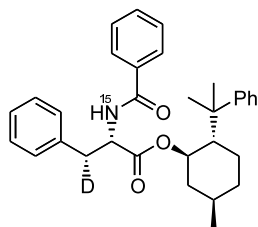
$\text{C}_8\text{H}_9\text{DO}_3\text{S}$

(*S*)-(+)-Benzyl- $\alpha$ -*D* mesylate

$[\alpha]_{\text{D}}^{21} +0.5$  ( $c$  12.8, ethyl acetate)

Derek W. Barnett, Michael J. Panigot and Robert W. Curley, Jr.\*

*Tetrahedron: Asymmetry* 13 (2002) 1893



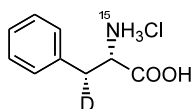
$[\alpha]_D^{21} = -12.1$  (c 4.1, ethyl acetate)

$C_{32}H_{36}D^{15}NO_3$

(2*S*,3*R*)-*N*-Benzoyl-[3-<sup>2</sup>H,<sup>15</sup>N]-phenylalanine(-)-8-phenylmenthyl ester

Derek W. Barnett, Michael J. Panigot and Robert W. Curley, Jr.\*

*Tetrahedron: Asymmetry* 13 (2002) 1893



Mp 190–200°C dec.

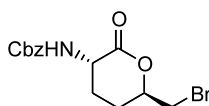
$[\alpha]_D^{20} = -10.75$  (c 5.0, H<sub>2</sub>O)

$C_9H_{11}D^{15}NO_2Cl$

(2*S*,3*R*)-[3-<sup>2</sup>H,<sup>15</sup>N]-Phenylalanine hydrochloride

Pietro Allevi,\* Matteo Galligani and Mario Anastasia

*Tetrahedron: Asymmetry* 13 (2002) 1901



$[\alpha]_D^{25} = +5.4$  (c 1, CHCl<sub>3</sub>)

Source of chirality: natural L-lysine

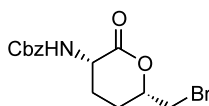
Absolute configuration: 2*S*,5*R*

$C_{14}H_{16}BrNO_4$

(2*S*,5*R*)-2-Benzyloxycarbonylamino-5-bromomethyl- $\delta$ -valerolactone

Pietro Allevi,\* Matteo Galligani and Mario Anastasia

*Tetrahedron: Asymmetry* 13 (2002) 1901



$[\alpha]_D^{25} = +58.2$  (c 1, CHCl<sub>3</sub>)

Source of chirality: natural L-lysine

Absolute configuration: 2*S*,5*S*

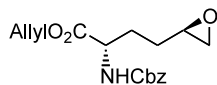
$C_{14}H_{16}BrNO_4$

(2*S*,5*S*)-2-Benzyloxycarbonylamino-5-bromomethyl- $\delta$ -valerolactone



Pietro Allevi,\* Matteo Galligani and Mario Anastasia

*Tetrahedron: Asymmetry 13 (2002) 1901*



$C_{17}H_{21}NO_5$

Allyl (2*S*,5*R*)-2-benzyloxycarbonylamino-4-(2-oxiranyl)butanoate

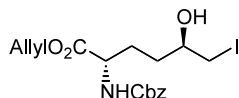
$[\alpha]_D^{25} = +10.8$  (*c* 1,  $CHCl_3$ )

Source of chirality: natural L-lysine

Absolute configuration: 2*S*,5*R*

Pietro Allevi,\* Matteo Galligani and Mario Anastasia

*Tetrahedron: Asymmetry 13 (2002) 1901*



$C_{17}H_{22}INO_5$

Allyl (2*S*,5*R*)-2-benzyloxycarbonylamino-5-hydroxy-6-iodohexanoate

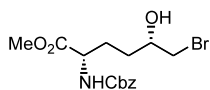
$[\alpha]_D^{25} = +6.9$  (*c* 1,  $CHCl_3$ )

Source of chirality: natural L-lysine

Absolute configuration: 2*S*,5*R*

Pietro Allevi,\* Matteo Galligani and Mario Anastasia

*Tetrahedron: Asymmetry 13 (2002) 1901*



$C_{15}H_{20}BrNO_5$

Methyl (2*S*,5*S*)-2-benzyloxycarbonylamino-6-bromo-5-hydroxyhexanoate

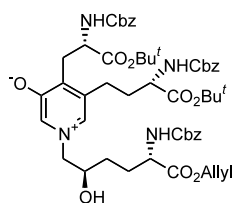
$[\alpha]_D^{25} = +7.6$  (*c* 1,  $CHCl_3$ )

Source of chirality: natural L-lysine

Absolute configuration: 2*S*,5*S*

Pietro Allevi,\* Matteo Galligani and Mario Anastasia

*Tetrahedron: Asymmetry 13 (2002) 1901*



$C_{53}H_{66}N_4O_{14}$

4-[(*S*)-2-Benzyloxycarbonylamino-2-(*tert*-butyloxycarbonyl)ethyl]-5-[(*S*)-3-benzyloxy carbonylamino-3-(*tert*-butyloxycarbonyl)propyl]-1-[(2*R*,5*S*)-5-benzyloxycarbonylamino-5-(allyloxycarbonyl)-2-hydroxypentyl]-3-pyridiniumolate

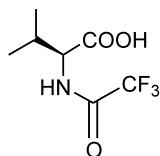
$[\alpha]_D^{25} = -2.3$  (*c* 0.6,  $CHCl_3$ )

Source of chirality: natural L-lysine

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

Victor P. Krasnov,\* Galina L. Levit, Iraida M. Bukrina,  
Alexander M. Demin, Oleg N. Chupakhin and Ji Uk Yoo

*Tetrahedron: Asymmetry 13 (2002) 1911*



$C_7H_{10}F_3NO_3$

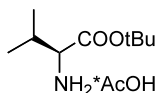
*N*-Trifluoroacetyl-(*S*)-valine

$[\alpha]_D^{20} -15$  (*c* 2,  $H_2O$ )

Source of chirality: from (*S*)-valine

Victor P. Krasnov,\* Galina L. Levit, Iraida M. Bukrina,  
Alexander M. Demin, Oleg N. Chupakhin and Ji Uk Yoo

*Tetrahedron: Asymmetry 13 (2002) 1911*



$C_{11}H_{23}NO_4$

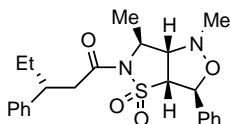
(*S*)-Valine *tert*-butyl acetate

$[\alpha]_D^{20} +20.2$  (*c* 2, EtOH)

Source of chirality: from (*S*)-valine

Ugo Chiacchio,\* Antonino Corsaro, Giovanni Gambera,  
Antonio Rescifina, Anna Piperno, Roberto Romeo and Giovanni Romeo\*

*Tetrahedron: Asymmetry 13 (2002) 1915*



$C_{23}H_{28}N_2O_4S$

(-)-(3*S*,3*aR*,6*S*,6*aS*)-1,6-Dimethyl-3-phenyl-5-[(3*R*)-3-phenylpentanoyl]hexahydroisothiazolo[4,5-*c*]isoxazole 4,4-dioxide

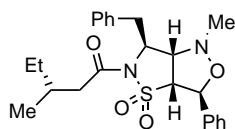
$[\alpha]_D^{25} = -2.0$  (*c* 1.26,  $CHCl_3$ )

Source of chirality: L-alanine

Absolute configuration: 3*S*,3*aR*,6*S*,6*aS*,(3*R*)

Ugo Chiacchio,\* Antonino Corsaro, Giovanni Gambera,  
Antonio Rescifina, Anna Piperno, Roberto Romeo and Giovanni Romeo\*

*Tetrahedron: Asymmetry 13 (2002) 1915*



$C_{24}H_{30}N_2O_4S$

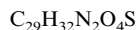
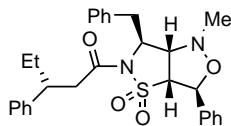
(+)-(3*S*,3*aR*,6*S*,6*aS*)-6-Benzyl-1-methyl-5-[(3*R*)-3-methylpentanoyl]-3-phenylhexahydroisothiazolo[4,5-*c*]isoxazole 4,4-dioxide

$[\alpha]_D^{25} = +41.1$  (*c* 0.56,  $CHCl_3$ )

Source of chirality: L-phenylalanine

Absolute configuration: 3*S*,3*aR*,6*S*,6*aS*,(3*R*)

Ugo Chiacchio,\* Antonino Corsaro, Giovanni Gambera,  
Antonio Rescifina, Anna Piperno, Roberto Romeo and Giovanni Romeo\*



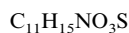
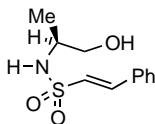
(+)-(3*S*,3*aR*,6*S*,6*aS*)-6-Benzyl-1-methyl-3-phenyl-5-[(3*R*)-3-phenylpentanoyl]hexahydroisothiazolo[4,5-*c*]isoxazole 4,4-dioxide

$$[\alpha]_D^{25} = +25.4 \text{ (} c \text{ 0.66, CHCl}_3 \text{)}$$

Source of chirality: L-phenylalanine

Absolute configuration: 3*S*,3*aR*,6*S*,6*aS*,(3*R*)

Ugo Chiacchio,\* Antonino Corsaro, Giovanni Gambera,  
Antonio Rescifina, Anna Piperno, Roberto Romeo and Giovanni Romeo\*



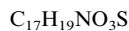
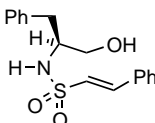
(*E*)-(-)-*N*-[(1*S*)-2-Hydroxy-1-methylethyl]-2-phenylethylsulfonamide

$$[\alpha]_D^{25} = -2.7 \text{ (} c \text{ 0.74, CHCl}_3 \text{)}$$

Source of chirality: L-alanine

Absolute configuration: 1*S*

Ugo Chiacchio,\* Antonino Corsaro, Giovanni Gambera,  
Antonio Rescifina, Anna Piperno, Roberto Romeo and Giovanni Romeo\*



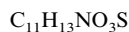
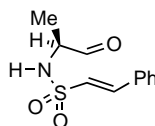
(*E*)-(+)-*N*-[(1*S*)-1-Benzyl-2-hydroxyethyl]-2-phenylethylsulfonamide

$$[\alpha]_D^{25} = +4.1 \text{ (} c \text{ 0.98, CHCl}_3 \text{)}$$

Source of chirality: L-phenylalanine

Absolute configuration: 1*S*

Ugo Chiacchio,\* Antonino Corsaro, Giovanni Gambera,  
Antonio Rescifina, Anna Piperno, Roberto Romeo and Giovanni Romeo\*



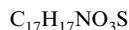
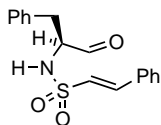
(*E*)-(+)-*N*-[(1*S*)-1-Methyl-2-oxoethyl]-2-phenylethylsulfonamide

$$[\alpha]_D^{25} = +15.3 \text{ (} c \text{ 0.71, CHCl}_3 \text{)}$$

Source of chirality: L-alanine

Absolute configuration: 1*S*

Ugo Chiacchio,\* Antonino Corsaro, Giovanni Gambera,  
Antonio Rescifina, Anna Piperno, Roberto Romeo and Giovanni Romeo\*



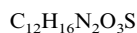
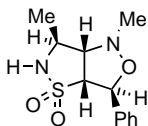
(E)-(-)-N-[(1S)-1-Benzyl-2-oxoethyl]-2-phenylethanesulfonamide

$$[\alpha]_{\text{D}}^{25} = -19.7 \text{ (} c \text{ 0.92, CHCl}_3\text{)}$$

Source of chirality: L-phenylalanine

Absolute configuration: 1S

Ugo Chiacchio,\* Antonino Corsaro, Giovanni Gambera,  
Antonio Rescifina, Anna Piperno, Roberto Romeo and Giovanni Romeo\*



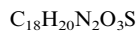
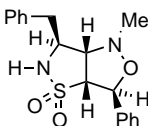
(+)-(3S,3aR,6S,6aS)-1,6-Dimethyl-3-phenylhexahydroisothiazolo[4,5-c]isoxazole 4,4-dioxide

$$[\alpha]_{\text{D}}^{25} = +12.4 \text{ (} c \text{ 0.81, CHCl}_3\text{)}$$

Source of chirality: L-alanine

Absolute configuration: 3S,3aR,6S,6aS

Ugo Chiacchio,\* Antonino Corsaro, Giovanni Gambera,  
Antonio Rescifina, Anna Piperno, Roberto Romeo and Giovanni Romeo\*



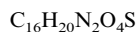
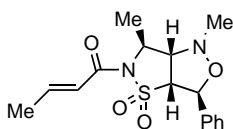
(+)-(3S,3aR,6S,6aS)-6-Benzyl-1-methyl-3-phenylhexahydroisothiazolo[4,5-c]isoxazole 4,4-dioxide

$$[\alpha]_{\text{D}}^{25} = +25.9 \text{ (} c \text{ 0.81, CHCl}_3\text{)}$$

Source of chirality: L-phenylalanine

Absolute configuration: 3S,3aR,6S,6aS

Ugo Chiacchio,\* Antonino Corsaro, Giovanni Gambera,  
Antonio Rescifina, Anna Piperno, Roberto Romeo and Giovanni Romeo\*



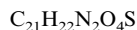
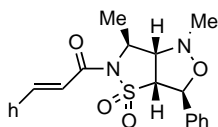
(-)-(3S,3aR,6S,6aS)-5-[(2E)-But-2-enoyl]-1,6-dimethyl-3-phenylhexahydroisothiazolo[4,5-c]isoxazole 4,4-dioxide

$$[\alpha]_{\text{D}}^{25} = -23.2 \text{ (} c \text{ 0.73, CHCl}_3\text{)}$$

Source of chirality: L-alanine

Absolute configuration: 3S,3aR,6S,6aS

Ugo Chiacchio,\* Antonino Corsaro, Giovanni Gambera,  
Antonio Rescifina, Anna Piperno, Roberto Romeo and Giovanni Romeo\*



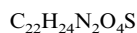
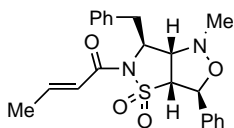
(-)-(3*S*,3*aR*,6*S*,6*aS*)-1,6-Dimethyl-3-phenyl-5-[(2*E*)-3-phenylprop-2-enoyl]hexahydroisothiazolo[4,5-*c*]isoxazole 4,4-dioxide

$[\alpha]_{\text{D}}^{25} = -37.8$  (*c* 0.78,  $\text{CHCl}_3$ )

Source of chirality: L-alanine

Absolute configuration: 3*S*,3*aR*,6*S*,6*aS*

Ugo Chiacchio,\* Antonino Corsaro, Giovanni Gambera,  
Antonio Rescifina, Anna Piperno, Roberto Romeo and Giovanni Romeo\*



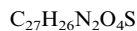
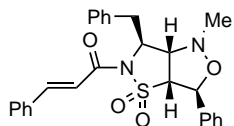
(+)-(3*S*,3*aR*,6*S*,6*aS*)-6-Benzyl-5-[(2*E*)-but-2-enoyl]-1-methyl-3-phenylhexahydroisothiazolo[4,5-*c*]isoxazole 4,4-dioxide

$[\alpha]_{\text{D}}^{25} = +17.7$  (*c* 0.56,  $\text{CHCl}_3$ )

Source of chirality: L-phenylalanine

Absolute configuration: 3*S*,3*aR*,6*S*,6*aS*

Ugo Chiacchio,\* Antonino Corsaro, Giovanni Gambera,  
Antonio Rescifina, Anna Piperno, Roberto Romeo and Giovanni Romeo\*



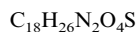
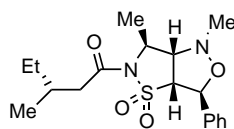
(-)-(3*S*,3*aR*,6*S*,6*aS*)-6-Benzyl-1-methyl-3-phenyl-5-[(2*E*)-3-phenylprop-2-enoyl]hexahydroisothiazolo[4,5-*c*]isoxazole 4,4-dioxide

$[\alpha]_{\text{D}}^{25} = -33.5$  (*c* 0.87,  $\text{CHCl}_3$ )

Source of chirality: L-phenylalanine

Absolute configuration: 3*S*,3*aR*,6*S*,6*aS*

Ugo Chiacchio,\* Antonino Corsaro, Giovanni Gambera,  
Antonio Rescifina, Anna Piperno, Roberto Romeo and Giovanni Romeo\*



(-)-(3*S*,3*aR*,6*S*,6*aS*)-1,6-Dimethyl-5-[(3*R*)-3-methylpentanoyl]-3-phenylhexahydroisothiazolo[4,5-*c*]isoxazole 4,4-dioxide

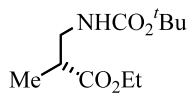
$[\alpha]_{\text{D}}^{25} = -11.5$  (*c* 0.91,  $\text{CHCl}_3$ )

Source of chirality: L-alanine

Absolute configuration: 3*S*,3*aR*,6*S*,6*aS*,(3*R*)

Magdolna Solymár, Arto Liljeblad, László Lázár, Ferenc Fülöp and Liisa T. Kanerva\*

*Tetrahedron: Asymmetry 13 (2002) 1923*



$C_{11}H_{21}NO_4$

Ethyl (*R*)-3-(*tert*-butoxycarbonyl)amino-2-methylpropionate

Ee=97% by GC on CP-Chirasil-Dex CB column

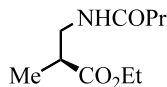
$[\alpha]_D^{20} = -26.6$  (*c* 1.00, MeOH)

Source of chirality: kinetic resolution catalysed by CAL-A

Absolute configuration: *R*

Magdolna Solymár, Arto Liljeblad, László Lázár, Ferenc Fülöp and Liisa T. Kanerva\*

*Tetrahedron: Asymmetry 13 (2002) 1923*



$C_{10}H_{19}NO_3$

Ethyl (*S*)-3-butyrylamino-2-methylpropionate

Ee=96% by GC on CP-Chirasil-Dex CB column

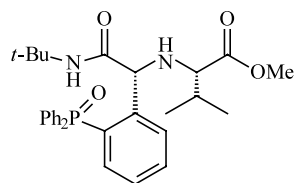
$[\alpha]_D^{20} = +36.4$  (*c* 1.00, MeOH)

Source of chirality: Sequential resolution with CAL-A and CALA-B

Absolute configuration: *S*

Gerald Dyker,\* Klaus Breitenstein and Gerald Henkel

*Tetrahedron: Asymmetry 13 (2002) 1929*



$C_{30}H_{37}N_2O_3P$

(2*S*,1'*R*)-2-[*N*-(1'-*N*-*tert*-Butylcarbamoyl)-(*o*-diphenylphosphinoyl)-benzyl]amino-3-methylbutanoic acid methyl ester

E.e. = 100%

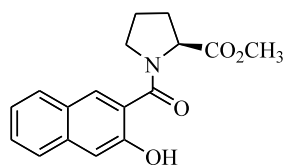
D.e. = 100%

Source of chirality: asymmetric synthesis

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

Zhuo-qun Xin, Chao-shan Da, Shou-liang Dong, Da-xue Liu, Jie Wei and Rui Wang\*

*Tetrahedron: Asymmetry 13 (2002) 1937*



$C_{17}H_{17}NO_4$

(*S*)-1-(3-Hydroxy-2-naphthylcarbonyl)pyrrolidine-2-carboxylic acid methyl ester

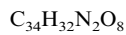
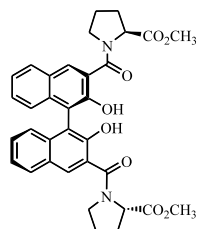
Mp 138–142°C

$[\alpha]_D^{25} = -58.7$  (*c* 0.476, EtOAc)

Absolute configuration: *S*

Zhuo-qun Xin, Chao-shan Da, Shou-liang Dong, Da-xue Liu,  
Jie Wei and Rui Wang\*

*Tetrahedron: Asymmetry* 13 (2002) 1937



(*S,S,R*)-2,2'-Dihydroxy-3,3'-bis(2-methoxycarbonyl-1-pyrrolidinylcarbonyl)-1,1'-binaphthalene

Mp 135–138°C

D.e. 97%

$[\alpha]_D^{20} = -10$  (*c* 1.12, CH<sub>3</sub>OH)

Absolute configuration: *S,S,R*