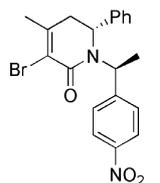


Stereochemistry abstracts

Fides Benfatti, Giuliana Cardillo,\* Serena Fabbroni, Luca Gentilucci, Rossana Perciaccante, Alessandra Tolomelli,\* Monica Baiula and Santi Spampinato\*

*Tetrahedron: Asymmetry 17 (2006) 167*



$C_{20}H_{19}BrN_2O_3$

(6*R*)-3-Bromo-5,6-dihydro-4-methyl-1-((1'*S*)-1-(4-nitrophenyl)ethyl)-6-phenylpyridin-2-one

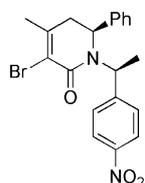
$[\alpha]_D^{23} = +54$  (*c* 1.09,  $CHCl_3$ )

Source of chirality: (*S*)-1-(4-nitrophenyl)ethylamine

Absolute configuration: (1'*S*,6*R*)

Fides Benfatti, Giuliana Cardillo,\* Serena Fabbroni, Luca Gentilucci, Rossana Perciaccante, Alessandra Tolomelli,\* Monica Baiula and Santi Spampinato\*

*Tetrahedron: Asymmetry 17 (2006) 167*



$C_{20}H_{19}BrN_2O_3$

(6*S*)-3-Bromo-5,6-dihydro-4-methyl-1-((1'*S*)-1-(4-nitrophenyl)ethyl)-6-phenylpyridin-2-one

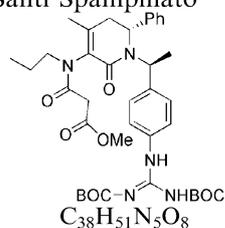
$[\alpha]_D^{23} = -123$  (*c* 0.9,  $CHCl_3$ )

Source of chirality: (*S*)-1-(4-nitrophenyl)ethylamine

Absolute configuration: (1'*S*,6*S*)

Fides Benfatti, Giuliana Cardillo,\* Serena Fabbroni, Luca Gentilucci, Rossana Perciaccante, Alessandra Tolomelli,\* Monica Baiula and Santi Spampinato\*

*Tetrahedron: Asymmetry 17 (2006) 167*



$C_{38}H_{51}N_5O_8$

(1'*S*,6*R*)-*N*-(1-{1-[4-(*N'*,*N''*-Di-*tert*-butylloxycarbonyl-guanidino)-phenyl]-ethyl}-4-methyl-2-oxo-6-phenyl-1,2,5,6-tetrahydropyridin-3-yl)-*N*-propyl-malonamic acid methyl ester

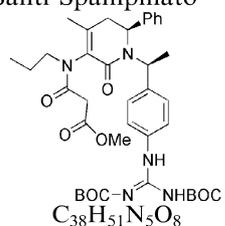
$[\alpha]_D^{23} = +7$  (*c* 1.1,  $CHCl_3$ )

Source of chirality: (*S*)-1-(4-nitrophenyl)ethylamine

Absolute configuration: (1'*S*,6*R*)

Fides Benfatti, Giuliana Cardillo,\* Serena Fabbroni, Luca Gentilucci, Rossana Perciaccante, Alessandra Tolomelli,\* Monica Baiula and Santi Spampinato\*

*Tetrahedron: Asymmetry 17 (2006) 167*



$C_{38}H_{51}N_5O_8$

(1'*S*,6*S*)-*N*-(1-{1-[4-(*N'*,*N''*-Di-*tert*-butylloxycarbonyl-guanidino)-phenyl]-ethyl}-4-methyl-2-oxo-6-phenyl-1,2,5,6-tetrahydropyridin-3-yl)-*N*-propyl-malonamic acid methyl ester

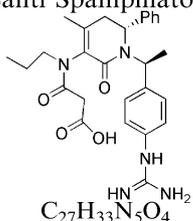
$[\alpha]_D^{23} = -71$  (*c* 1.3,  $CHCl_3$ )

Source of chirality: (*S*)-1-(4-nitrophenyl)ethylamine

Absolute configuration: (1'*S*,6*S*)

Fides Benfatti, Giuliana Cardillo,\* Serena Fabbroni, Luca Gentilucci,  
Rossana Perciaccante, Alessandra Tolomelli,\* Monica Baiula  
and Santi Spampinato\*

*Tetrahedron: Asymmetry 17 (2006) 167*



$$[\alpha]_D^{23} = +32 \text{ (} c \text{ 2.2, CHCl}_3\text{)}$$

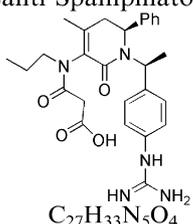
Source of chirality: (*S*)-1-(4-nitrophenyl)ethylamine

Absolute configuration: (1'*S*,6*R*)

(1'*S*,6*R*)-*N*-[1-[1-(4-Guanidino-phenyl)-ethyl]-4-methyl-2-oxo-6-phenyl-1,2,5,6-tetrahydro-pyridin-3-yl]-*N*-propyl-malonamic acid

Fides Benfatti, Giuliana Cardillo,\* Serena Fabbroni, Luca Gentilucci,  
Rossana Perciaccante, Alessandra Tolomelli,\* Monica Baiula  
and Santi Spampinato\*

*Tetrahedron: Asymmetry 17 (2006) 167*



$$[\alpha]_D^{23} = -73 \text{ (} c \text{ 1.4, CHCl}_3\text{)}$$

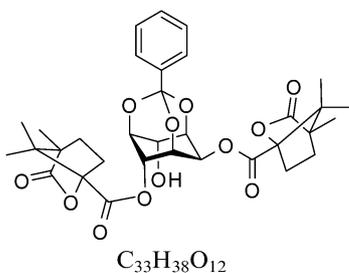
Source of chirality: (*S*)-1-(4-nitrophenyl)ethylamine

Absolute configuration: (1'*S*,6*S*)

(1'*S*,6*S*)-*N*-[1-[1'-(4-Guanidino-phenyl)-ethyl]-4-methyl-2-oxo-6-phenyl-1,2,5,6-tetrahydro-pyridin-3-yl]-*N*-propyl-malonamic acid

Andrew M. Riley, H. Yasmin Godage, Mary F. Mahon and  
Barry V. L. Potter\*

*Tetrahedron: Asymmetry 17 (2006) 171*



De >98%

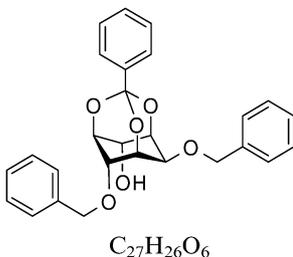
$$[\alpha]_D^{20} = -19.4 \text{ (} c \text{ 0.9, DMF)}$$

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

D-2,6-Di-*O*-[(-)-camphanoyl]-*myo*-inositol 1,3,5-orthobenzoate

Andrew M. Riley, H. Yasmin Godage, Mary F. Mahon and  
Barry V. L. Potter\*

*Tetrahedron: Asymmetry 17 (2006) 171*



Ee >98%

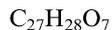
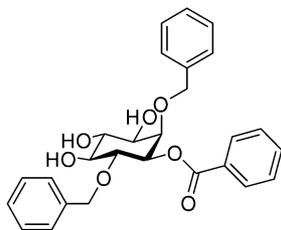
$$[\alpha]_D^{20} = +3 \text{ (} c \text{ 1, CHCl}_3\text{)}$$

Source of chirality: the precursor

D-2,6-Di-*O*-benzyl-*myo*-inositol 1,3,5-orthobenzoate

Andrew M. Riley, H. Yasmin Godage, Mary F. Mahon and Barry V. L. Potter\*

*Tetrahedron: Asymmetry 17 (2006) 171*



D-1-O-Benzoyl-2,6-di-O-benzyl-myoinositol

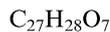
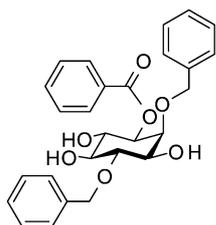
Ee >98%

$[\alpha]_D^{20} = -118.9$  (c 1, MeOH)

Source of chirality: the precursor

Andrew M. Riley, H. Yasmin Godage, Mary F. Mahon and Barry V. L. Potter\*

*Tetrahedron: Asymmetry 17 (2006) 171*



D-3-O-Benzoyl-2,6-di-O-benzyl-myoinositol

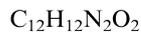
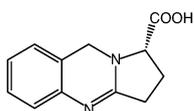
Ee >98%

$[\alpha]_D^{20} = +36.7$  (c 1, MeOH)

Source of chirality: the precursor

Maosheng Cheng,\* Qiang Li, Bin Lin, Yu Sha, Jinhong Ren, Yan He, Qinghe Wang, Huiming Hua and Kenneth Ruud

*Tetrahedron: Asymmetry 17 (2006) 179*

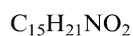
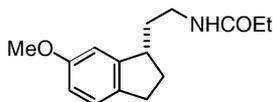


(S)-Linarinic acid

$[\alpha]_D^{18} = -290.0$  (c 0.01, MeOH)

Toru Yamano,\* Masayuki Yamashita, Mari Adachi, Mitsutaka Tanaka, Kiyoharu Matsumoto, Mitsuru Kawada, Osamu Uchikawa, Kohji Fukatsu and Shigenori Ohkawa

*Tetrahedron: Asymmetry 17 (2006) 184*



(S)-N-[2-(6-Methoxy-2,3-dihydro-1H-inden-1-yl)ethyl]propionamide

Ee = 99%

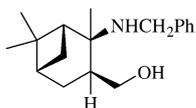
$[\alpha]_D^{25} = -4.4$  (c 1, CHCl<sub>3</sub>)

Source of chirality: asymmetric synthesis

Absolute configuration: (S)

Zsolt Szakonyi, Árpád Balázs, Tamás A. Martinek and Ferenc Fülöp\*

*Tetrahedron: Asymmetry 17 (2006) 199*



$C_{18}H_{28}ClNO$

(1*R*,2*R*,3*S*,5*R*)-(2-Benzylamino-2,6,6-trimethylbicyclo[3.1.1]hept-3-yl)methanol hydrochloride

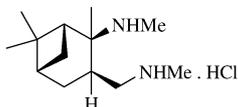
$[\alpha]_D^{20} = -14.1$  (*c* 0.5, MeOH)

Source of chirality: (1*S*,5*S*)-(-)- $\alpha$ -pinene

Absolute configuration: 1*R*,2*R*,3*S*,5*R*

Zsolt Szakonyi, Árpád Balázs, Tamás A. Martinek and Ferenc Fülöp\*

*Tetrahedron: Asymmetry 17 (2006) 199*



$C_{13}H_{27}ClN_2$

(1*R*,2*R*,3*R*,5*R*)-Methyl-(2,6,6-trimethyl-3-methylaminomethylbicyclo[3.1.1]hept-2-yl)amine hydrochloride

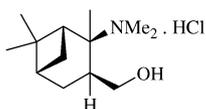
$[\alpha]_D^{20} = -11.7$  (*c* 0.5, MeOH)

Source of chirality: (1*S*,5*S*)-(-)- $\alpha$ -pinene

Absolute configuration: 1*R*,2*R*,3*R*,5*R*

Zsolt Szakonyi, Árpád Balázs, Tamás A. Martinek and Ferenc Fülöp\*

*Tetrahedron: Asymmetry 17 (2006) 199*



$C_{13}H_{26}ClNO$

(1*R*,2*R*,3*S*,5*R*)-(2-Dimethylamino-2,6,6-trimethylbicyclo[3.1.1]hept-3-yl)methanol hydrochloride

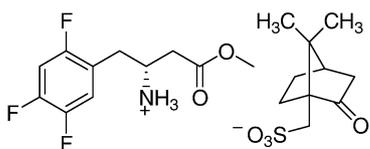
$[\alpha]_D^{20} = -31.8$  (*c* 0.5, MeOH)

Source of chirality: (1*S*,5*S*)-(-)- $\alpha$ -pinene

Absolute configuration: 1*R*,2*R*,3*S*,5*R*

Michele Kubryk\* and Karl B. Hansen

*Tetrahedron: Asymmetry 17 (2006) 205*



$C_{21}H_{28}F_3NO_6S$

Methyl (3*R*)-3-amino-4-(2,4,5-trifluorophenyl)butanoate (1*S*)-(+)-10 camphorsulfonic acid

$E_c = >99\%$

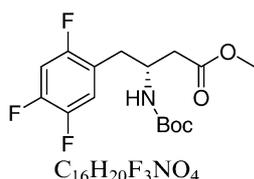
$[\alpha]_D = +15.7$  (*c* 1.02,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: (3*R*)

Michele Kubryk\* and Karl B. Hansen

*Tetrahedron: Asymmetry 17 (2006) 205*



Methyl (3*R*)-[(*tert*-butoxycarbonyl)amino]-4-(2,4,5-trifluorophenyl)butanoate

Ee = >99%

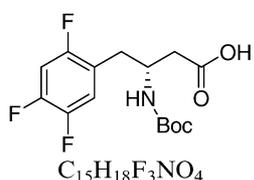
$[\alpha]_D = +15.2$  (*c* 1.0, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (3*R*)

Michele Kubryk\* and Karl B. Hansen

*Tetrahedron: Asymmetry 17 (2006) 205*



(3*R*)-3-[*N*-(*tert*-Butoxycarbonyl)amino]-4-(2,4,5-trifluorophenyl)butanoic acid

Ee = >99%

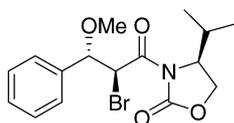
$[\alpha]_D = +32.3$  (*c* 1.0, CHCl<sub>3</sub>)

Source of chirality: asymmetric synthesis

Absolute configuration: (3*R*)

Saumen Hajra,\* Ananta Karmakar and Manishabrata Bhowmick

*Tetrahedron: Asymmetry 17 (2006) 210*



*anti*-(4*S*,2'*S*,3'*S*)-3-[2'-Bromo-3'-methoxy-3'-phenyl-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

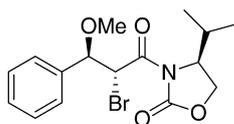
$[\alpha]_D^{27} = +84.3$  (*c* 1.0, CHCl<sub>3</sub>)

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

Saumen Hajra,\* Ananta Karmakar and Manishabrata Bhowmick

*Tetrahedron: Asymmetry 17 (2006) 210*



*anti*-(4*S*,2'*R*,3'*R*)-3-[2'-Bromo-3'-methoxy-3'-phenyl-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

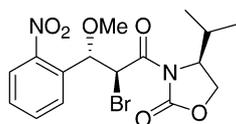
$[\alpha]_D^{27} = -4.8$  (*c* 1.0, CHCl<sub>3</sub>)

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

Saumen Hajra,\* Ananta Karmakar and Manishabrata Bhowmick

*Tetrahedron: Asymmetry 17 (2006) 210*



C<sub>16</sub>H<sub>19</sub>BrN<sub>2</sub>O<sub>6</sub>

*anti*-(4*S*,2'*S*,3'*S*)-3-[2-*Bromo*-3'-methoxy-3'-(2-nitrophenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

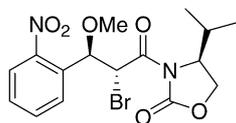
[ $\alpha$ ]<sub>D</sub><sup>27</sup> = +171.35 (*c* 1.0, CHCl<sub>3</sub>)

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

Saumen Hajra,\* Ananta Karmakar and Manishabrata Bhowmick

*Tetrahedron: Asymmetry 17 (2006) 210*



C<sub>16</sub>H<sub>19</sub>BrN<sub>2</sub>O<sub>6</sub>

*anti*-(4*S*,2'*R*,3'*R*)-3-[2'-*Bromo*-3'-methoxy-3'-(2-nitrophenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

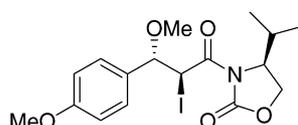
[ $\alpha$ ]<sub>D</sub><sup>27</sup> = +18.6 (*c* 1.0, CHCl<sub>3</sub>)

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

Saumen Hajra,\* Ananta Karmakar and Manishabrata Bhowmick

*Tetrahedron: Asymmetry 17 (2006) 210*



C<sub>17</sub>H<sub>22</sub>INO<sub>5</sub>

*anti*-(4*S*,2'*S*,3'*S*)-3-[2'-*Iodo*-3'-methoxy-3'-(4-methoxyphenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

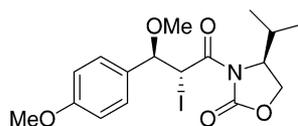
[ $\alpha$ ]<sub>D</sub><sup>27</sup> = +22.5 (*c* 1.0, CHCl<sub>3</sub>)

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

Saumen Hajra,\* Ananta Karmakar and Manishabrata Bhowmick

*Tetrahedron: Asymmetry 17 (2006) 210*



C<sub>17</sub>H<sub>22</sub>INO<sub>5</sub>

*anti*-(4*S*,2'*R*,3'*R*)-3-[2'-*Iodo*-3'-methoxy-3'-(4-methoxyphenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

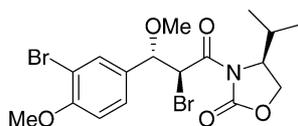
[ $\alpha$ ]<sub>D</sub><sup>27</sup> = -19.5 (*c* 1.0, CHCl<sub>3</sub>)

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

Saumen Hajra,\* Ananta Karmakar and Manishabrata Bhowmick

*Tetrahedron: Asymmetry 17 (2006) 210*



$C_{21}H_{21}Br_2NO_5$

*anti*-(4*S*,2'*S*,3'*S*)-3-[2'-Bromo-3'-methoxy-3'-(3-bromo-4-methoxyphenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

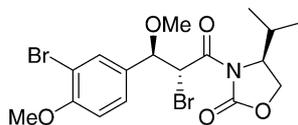
$[\alpha]_D^{28} = +88.9$  (c 1.0, CHCl<sub>3</sub>)

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

Saumen Hajra,\* Ananta Karmakar and Manishabrata Bhowmick

*Tetrahedron: Asymmetry 17 (2006) 210*



$C_{21}H_{21}Br_2NO_5$

*anti*-(4*S*,2'*R*,3'*R*)-3-[2'-Bromo-3'-methoxy-3'-(3-bromo-4-methoxyphenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

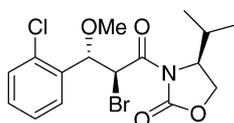
$[\alpha]_D^{28} = +8.4$  (c 1.0, CHCl<sub>3</sub>)

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

Saumen Hajra,\* Ananta Karmakar and Manishabrata Bhowmick

*Tetrahedron: Asymmetry 17 (2006) 210*



$C_{16}H_{19}BrClNO_4$

*anti*-(4*S*,2'*S*,3'*S*)-3-[2'-Bromo-3'-methoxy-3'-(2-chlorophenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

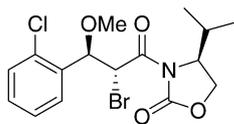
$[\alpha]_D^{27} = +77.8$  (c 1.0, CHCl<sub>3</sub>)

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

Saumen Hajra,\* Ananta Karmakar and Manishabrata Bhowmick

*Tetrahedron: Asymmetry 17 (2006) 210*



$C_{16}H_{19}BrClNO_4$

*anti*-(4*S*,2'*R*,3'*R*)-3-[2'-Bromo-3'-methoxy-3'-(2-chlorophenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

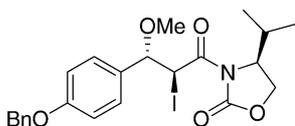
$[\alpha]_D^{27} = +7.3$  (c 1.0, CHCl<sub>3</sub>)

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

Saumen Hajra,\* Ananta Karmakar and Manishabrata Bhowmick

*Tetrahedron: Asymmetry 17 (2006) 210*



$C_{23}H_{26}INO_5$

*anti*-(4*S*,2'*S*,3'*S*)-3-[2'-Iodo-3'-methoxy-3'-(4-benzyloxyphenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

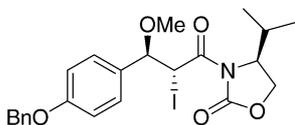
$[\alpha]_D^{27} = +78.9$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

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$C_{23}H_{26}INO_5$

*anti*-(4*S*,2'*R*,3'*R*)-3-[2'-Iodo-3'-methoxy-3'-(4-benzyloxyphenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

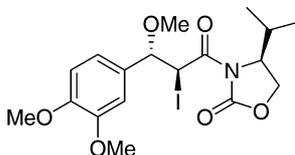
$[\alpha]_D^{27} = +21.8$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

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$C_{18}H_{24}INO_6$

*anti*-(4*S*,2'*S*,3'*S*)-3-[2'-Iodo-3'-methoxy-3'-(3,4-dimethoxyphenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

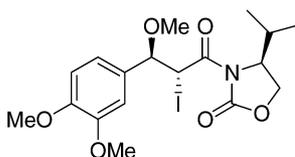
$[\alpha]_D^{27} = +75.0$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

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$C_{18}H_{24}INO_6$

*anti*-(4*S*,2'*R*,3'*R*)-3-[2'-Iodo-3'-methoxy-3'-(3,4-dimethoxyphenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

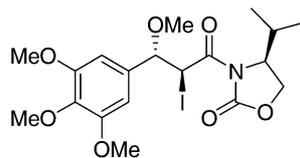
$[\alpha]_D^{27} = -3.85$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

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$C_{19}H_{26}INO_7$

*anti*-(4*S*,2'*S*,3'*S*)-3-[2'-Iodo-3'-methoxy-3'-(3,4,5-trimethoxyphenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

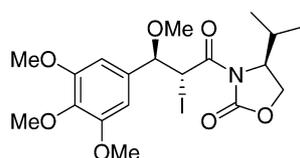
$[\alpha]_D^{27} = +86.6$  (c 1.0,  $CHCl_3$ )

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

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$C_{19}H_{26}INO_7$

*anti*-(4*S*,2'*R*,3'*R*)-3-[2'-Iodo-3'-methoxy-3'-(3,4,5-trimethoxyphenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

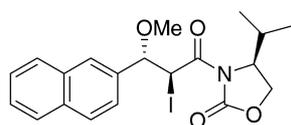
$[\alpha]_D^{27} = -17.1$  (c 1.0,  $CHCl_3$ )

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

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$C_{20}H_{22}INO_4$

*anti*-(4*S*,2'*S*,3'*S*)-3-[2'-Iodo-3'-methoxy-3'-(2-naphthyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

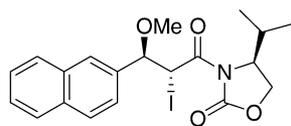
$[\alpha]_D^{27} = +108.6$  (c 1.0,  $CHCl_3$ )

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

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$C_{20}H_{22}INO_4$

*anti*-(4*S*,2'*R*,3'*R*)-3-[2'-Iodo-3'-methoxy-3'-(2-naphthyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

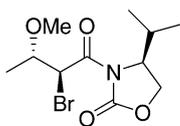
$[\alpha]_D^{27} = -39.5$  (c 1.0,  $CHCl_3$ )

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

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$C_{11}H_{18}BrNO_4$

*anti*-(4*S*,2'*S*,3'*S*)-3-(2'-Bromo-3'-methoxy-butionyl)-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

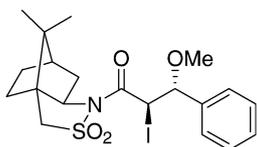
$[\alpha]_D^{27} = +60.6$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

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$C_{20}H_{26}INO_4S$

*anti*-(2*R*,2'*R*,3'*R*)-*N*-[2'-Iodo-3'-methoxy-3'-phenyl-propionyl]-bornanesultam

Ee = 100%

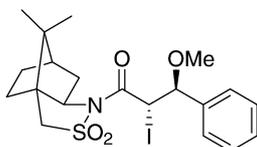
$[\alpha]_D^{27} = -102.2$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: 2*R*-bornanesultam

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

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$C_{20}H_{26}INO_4S$

*anti*-(2*R*,2'*S*,3'*S*)-*N*-[2'-Iodo-3'-methoxy-3'-phenyl-propionyl]-bornanesultam

Ee = 100%

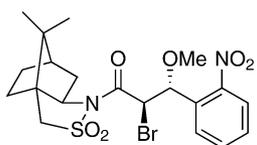
$[\alpha]_D^{27} = -7.00$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: 2*R*-bornanesultam

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

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$C_{20}H_{25}BrN_2O_6S$

*anti*-(2*R*,2'*R*,3'*R*)-*N*-[2'-Bromo-3'-methoxy-3'-(2-nitrophenyl)-propionyl]-bornanesultam

Ee = 100%

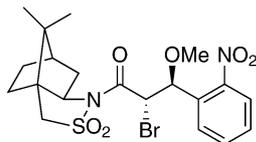
$[\alpha]_D^{27} = -109.1$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: 2*R*-bornanesultam

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

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$C_{20}H_{25}BrN_2O_6S$

*anti*-(2*R*,2'*S*,3'*S*)-*N*-[2'-Bromo-3'-methoxy-3'-(2-nitrophenyl)-propionyl]-bornanesultam

Ee = 100%

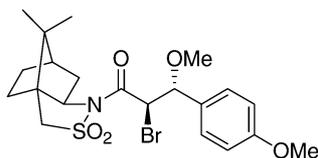
$[\alpha]_D^{27} = +56.2$  (c 1.0, CHCl<sub>3</sub>)

Source of chirality: 2*R*-bornanesultam

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

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$C_{21}H_{28}BrNO_5S$

*anti*-(2*R*,2'*R*,3'*R*)-*N*-[2'-Bromo-3'-methoxy-3'-(4-methoxyphenyl)-propionyl]-bornanesultam

Ee = 100%

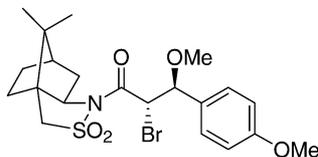
$[\alpha]_D^{27} = -90.3$  (c 1.0, CHCl<sub>3</sub>)

Source of chirality: 2*R*-bornanesultam

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

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$C_{21}H_{28}BrNO_5S$

*anti*-(2*R*,2'*S*,3'*S*)-*N*-[2'-Bromo-3'-methoxy-3'-(4-methoxyphenyl)-propionyl]-bornanesultam

Ee = 100%

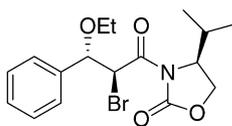
$[\alpha]_D^{27} = +19.3$  (c 1.0, CHCl<sub>3</sub>)

Source of chirality: 2*R*-bornanesultam

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

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$C_{17}H_{22}BrNO_4$

*anti*-(4*S*,2'*S*,3'*S*)-3-[2'-Bromo-3'-ethoxy-3'-phenyl-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

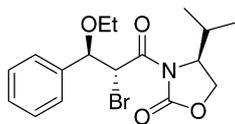
$[\alpha]_D^{27} = +0.7$  (c 1.0, CHCl<sub>3</sub>)

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

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$C_{17}H_{22}BrNO_4$

*anti*-(4*S*,2'*R*,3'*R*)-3-[2'-Bromo-3'-ethoxy-3'-phenyl-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

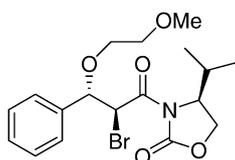
$[\alpha]_D^{27} = +94.5$  (c 1.0,  $CHCl_3$ )

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

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$C_{18}H_{24}BrNO_5$

*anti*-(4*S*,2'*S*,3'*S*)-3-[2'-Bromo-3'-(2-methoxy-ethoxy)-3'-phenyl-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

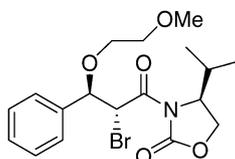
$[\alpha]_D^{27} = +99.8$  (c 1.0,  $CHCl_3$ )

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

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$C_{18}H_{24}BrNO_5$

*anti*-(4*S*,2'*R*,3'*R*)-3-[2'-Bromo-3'-(2-methoxy-ethoxy)-3'-phenyl-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

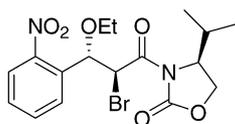
$[\alpha]_D^{27} = -4.7$  (c 1.0,  $CHCl_3$ )

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

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$C_{17}H_{21}BrN_2O_6$

*anti*-(4*S*,2'*S*,3'*S*)-3-[2'-Bromo-3'-ethoxy-3'-(2-nitrophenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

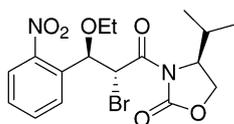
$[\alpha]_D^{27} = +101.4$  (c 1.0,  $CHCl_3$ )

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

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$C_{17}H_{21}BrN_2O_6$

*anti*-(4*S*,2'*R*,3'*R*)-3-[2'-Bromo-3'-ethoxy-3'-(2-nitrophenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

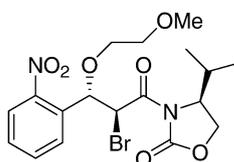
$[\alpha]_D^{27} = -92.7$  (c 1.0, CHCl<sub>3</sub>)

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

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$C_{18}H_{23}BrN_2O_7$

*anti*-(4*S*,2'*S*,3'*S*)-3-[2'-Bromo-3'-(2-methoxy-ethoxy)-3'-(2-nitrophenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

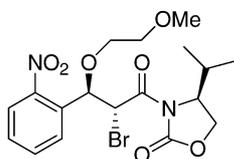
$[\alpha]_D^{27} = +147.3$  (c 1.0, CHCl<sub>3</sub>)

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

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$C_{18}H_{23}BrN_2O_7$

*anti*-(4*S*,2'*R*,3'*R*)-3-[2'-Bromo-3'-(2-methoxy-ethoxy)-3'-(2-nitrophenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

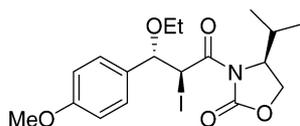
$[\alpha]_D^{27} = -89.9$  (c 1.0, CHCl<sub>3</sub>)

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

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$C_{18}H_{24}INO_5$

*anti*-(4*S*,2'*S*,3'*S*)-3-[2'-Iodo-3'-ethoxy-3'-(4-methoxyphenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

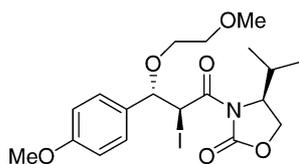
$[\alpha]_D^{27} = +89.8$  (c 1.0, CHCl<sub>3</sub>)

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

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$C_{19}H_{26}INO_6$

*anti*-(4*S*,2'*S*,3'*S*)-3-[2'-Iodo-3'-(2-methoxy-ethoxy)-3'-(4-methoxyphenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

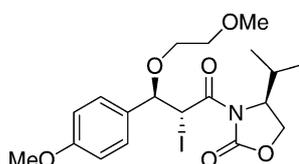
$[\alpha]_D^{27} = +86.1$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

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$C_{19}H_{26}INO_6$

*anti*-(4*S*,2'*R*,3'*R*)-3-[2'-Iodo-3'-(2-methoxy-ethoxy)-3'-(4-methoxyphenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

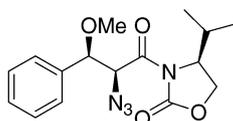
$[\alpha]_D^{27} = -12.95$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

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$C_{16}H_{20}N_4O_4$

*syn*-(4*S*,2'*S*,3'*R*)-3-[2'-Azido-3'-methoxy-3'-phenyl-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

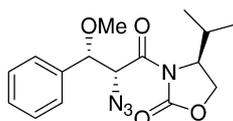
$[\alpha]_D^{27} = +48.75$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

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$C_{16}H_{20}N_4O_4$

*syn*-(4*S*,2'*R*,3'*S*)-3-[2'-Azido-3'-methoxy-3'-phenyl-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

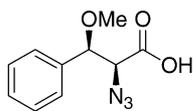
$[\alpha]_D^{27} = +44.3$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

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C<sub>10</sub>H<sub>11</sub>N<sub>3</sub>O<sub>3</sub>

*syn*-(2*S*,3*R*)-2-Azido-3-methoxy-3-phenyl-propionic acid

Ee = 100%

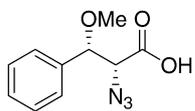
[α]<sub>D</sub><sup>27</sup> = -92.5 (c 1.0, CHCl<sub>3</sub>)

Source of chirality: Asymmetric synthesis

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

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C<sub>10</sub>H<sub>11</sub>N<sub>3</sub>O<sub>3</sub>

*syn*-(2*R*,3*S*)-2-Azido-3-methoxy-3-phenyl-propionic acid

Ee = 100%

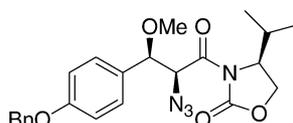
[α]<sub>D</sub><sup>27</sup> = +92.5 (c 1.0, CHCl<sub>3</sub>)

Source of chirality: Asymmetric synthesis

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

Saumen Hajra,\* Ananta Karmakar and Manishabrata Bhowmick

*Tetrahedron: Asymmetry 17 (2006) 210*



C<sub>23</sub>H<sub>26</sub>N<sub>4</sub>O<sub>5</sub>

*syn*-(4*S*,2'*S*,3'*R*)-3-[2'-Azido-3'-methoxy-3'-(4-benzyloxyphenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

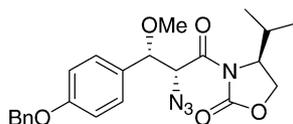
[α]<sub>D</sub><sup>27</sup> = +21.5 (c 1.0, CHCl<sub>3</sub>)

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

Saumen Hajra,\* Ananta Karmakar and Manishabrata Bhowmick

*Tetrahedron: Asymmetry 17 (2006) 210*



C<sub>23</sub>H<sub>26</sub>N<sub>4</sub>O<sub>5</sub>

*syn*-(4*S*,2'*R*,3'*S*)-3-[2'-Azido-3'-methoxy-3'-(4-benzyloxyphenyl)-propionyl]-4-(1-methylethyl)-2-oxazolidinone

Ee = 100%

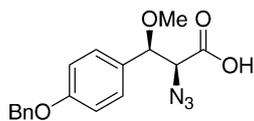
[α]<sub>D</sub><sup>27</sup> = +87.6 (c 1.0, CHCl<sub>3</sub>)

Source of chirality: 4*S*-(1-methylethyl)-2-oxazolidinone

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

Saumen Hajra,\* Ananta Karmakar and Manishabrata Bhowmick

*Tetrahedron: Asymmetry 17 (2006) 210*



$C_{17}H_{17}N_3O_4$

*syn*-(2*S*,3*R*)-2-Azido-3-(4-benzyloxyphenyl)-3-methoxy-propionic acid

Ee = 100%

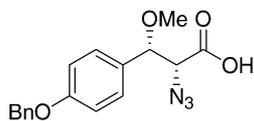
$[\alpha]_D^{27} = -94.2$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: Asymmetric synthesis

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

Saumen Hajra,\* Ananta Karmakar and Manishabrata Bhowmick

*Tetrahedron: Asymmetry 17 (2006) 210*



$C_{17}H_{17}N_3O_4$

*syn*-(2*R*,3*S*)-2-Azido-3-(4-benzyloxyphenyl)-3-methoxy-propionic acid

Ee = 100%

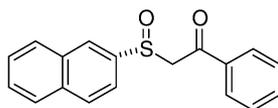
$[\alpha]_D^{27} = +94.2$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: Asymmetric synthesis

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

Cosimo Cardellicchio,\* Omar Hassan Omar, Francesco Naso,  
Maria Annunziata M. Capozzi, Francesco Capitelli and  
Valerio Bertolasi

*Tetrahedron: Asymmetry 17 (2006) 223*



$C_{18}H_{14}O_2S$

(*R*)-2-Naphthyl phenacyl sulfoxide

Ee >98% (HPLC)

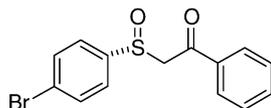
$[\alpha]_D^{25} = +204.5$  (*c* 1.01,  $CHCl_3$ )

Source of chirality: enantioselective oxidation

Absolute configuration: *R*

Cosimo Cardellicchio,\* Omar Hassan Omar, Francesco Naso,  
Maria Annunziata M. Capozzi, Francesco Capitelli and  
Valerio Bertolasi

*Tetrahedron: Asymmetry 17 (2006) 223*



$C_{14}H_{11}BrO_2S$

(*R*)-*p*-Bromophenyl phenacyl sulfoxide

Ee >98% (HPLC)

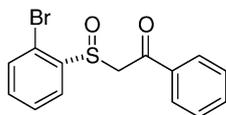
$[\alpha]_D^{25} = +174.3$  (*c* 1.00,  $CHCl_3$ )

Source of chirality: enantioselective oxidation

Absolute configuration: *R*

Cosimo Cardellicchio,\* Omar Hassan Omar, Francesco Naso,  
Maria Annunziata M. Capozzi, Francesco Capitelli and  
Valerio Bertolasi

*Tetrahedron: Asymmetry 17 (2006) 223*



$C_{14}H_{11}BrO_2S$

(*R*)-*o*-Bromophenyl phenacyl sulfoxide

Ee >98% (HPLC)

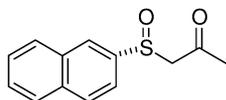
$[\alpha]_D^{25} = +390.4$  (*c* 1.01,  $CHCl_3$ )

Source of chirality: enantioselective oxidation

Absolute configuration: *R*

Cosimo Cardellicchio,\* Omar Hassan Omar, Francesco Naso,  
Maria Annunziata M. Capozzi, Francesco Capitelli and  
Valerio Bertolasi

*Tetrahedron: Asymmetry 17 (2006) 223*



$C_{13}H_{12}O_2S$

(*R*)-1-(2-Naphthylsulfinyl)-propan-2-one

Ee >98% (HPLC)

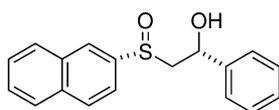
$[\alpha]_D^{25} = +231.2$  (*c* 0.99,  $CHCl_3$ )

Source of chirality: enantioselective oxidation

Absolute configuration: *R*

Cosimo Cardellicchio,\* Omar Hassan Omar, Francesco Naso,  
Maria Annunziata M. Capozzi, Francesco Capitelli and  
Valerio Bertolasi

*Tetrahedron: Asymmetry 17 (2006) 223*



$C_{18}H_{16}O_2S$

(*R,R\_S*)-1-Phenyl-2-(2-naphthylsulfinyl)-ethanol

De >98% (HPLC)

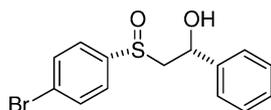
$[\alpha]_D^{25} = +55.2$  (*c* 0.98,  $CHCl_3$ )

Source of chirality: diastereoselective reduction

Absolute configuration: (*R,R\_S*)

Cosimo Cardellicchio,\* Omar Hassan Omar, Francesco Naso,  
Maria Annunziata M. Capozzi, Francesco Capitelli and  
Valerio Bertolasi

*Tetrahedron: Asymmetry 17 (2006) 223*



$C_{14}H_{13}BrO_2S$

(*R,R\_S*)-1-Phenyl-2-(*p*-bromophenylsulfinyl)-ethanol

De >98% (HPLC)

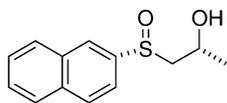
$[\alpha]_D^{25} = +72.6$  (*c* 0.99,  $CHCl_3$ )

Source of chirality: diastereoselective reduction

Absolute configuration: (*R,R\_S*)

Cosimo Cardellicchio,\* Omar Hassan Omar, Francesco Naso,  
Maria Annunziata M. Capozzi, Francesco Capitelli and  
Valerio Bertolasi

*Tetrahedron: Asymmetry 17 (2006) 223*



C<sub>13</sub>H<sub>14</sub>O<sub>2</sub>S

(*R,R\_S*)-1-(2-Naphthylsulfinyl)-propan-2-ol

De = 86% (HPLC)

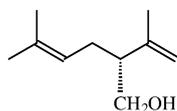
[ $\alpha$ ]<sub>D</sub><sup>25</sup> = +239 (*c* 1.00, CHCl<sub>3</sub>) for an 86% de

Source of chirality: diastereoselective reduction

Absolute configuration: (*R,R\_S*) (predominant)

Anat Zada\* and Ezra Dunkelblum

*Tetrahedron: Asymmetry 17 (2006) 230*



C<sub>10</sub>H<sub>18</sub>O

(*R*)-Lavandulol

Ee = 98%

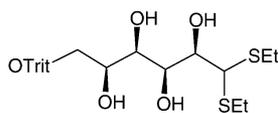
[ $\alpha$ ]<sub>D</sub><sup>27</sup> = -11.1 (*c* 2.28, MeOH)

Source of chirality: enzymatic resolution by  
acylation with succinic anhydride

Absolute configuration: (*R*)

Andreas Tauss, Andreas J. Steiner, Arnold E. Stütz,\* Chris A. Tarling,  
Stephen G. Withers and Tanja M. Wrodnigg

*Tetrahedron: Asymmetry 17 (2006) 234*



C<sub>29</sub>H<sub>36</sub>O<sub>5</sub>S<sub>2</sub>

6-*O*-Trityl-L-idose diethyldithioacetal

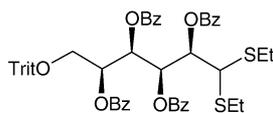
Ee = 100%

[ $\alpha$ ]<sub>D</sub><sup>20</sup> = -4.6 (*c* 1.9, MeOH)

Source of chirality: D-glucuronic acid as starting  
material

Andreas Tauss, Andreas J. Steiner, Arnold E. Stütz,\* Chris A. Tarling,  
Stephen G. Withers and Tanja M. Wrodnigg

*Tetrahedron: Asymmetry 17 (2006) 234*



C<sub>57</sub>H<sub>52</sub>O<sub>9</sub>S<sub>2</sub>

2,3,4,5-Tetra-*O*-benzoyl-6-*O*-trityl-L-idose diethyldithioacetal

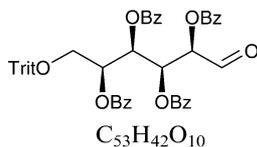
Ee = 100%

[ $\alpha$ ]<sub>D</sub><sup>20</sup> = +6.2 (*c* 1.6, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality: D-glucuronic acid as starting  
material

Andreas Tauss, Andreas J. Steiner, Arnold E. Stütz,\* Chris A. Tarling,  
Stephen G. Withers and Tanja M. Wrodnigg

*Tetrahedron: Asymmetry 17 (2006) 234*



2,3,4,5-Tetra-*O*-benzoyl-6-*O*-trityl-L-idose

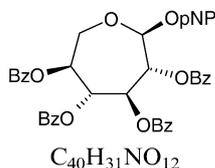
Ee = 100%

$[\alpha]_D^{20} = -13.8$  (*c* 1.7, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality: D-glucuronic acid as starting material

Andreas Tauss, Andreas J. Steiner, Arnold E. Stütz,\* Chris A. Tarling,  
Stephen G. Withers and Tanja M. Wrodnigg

*Tetrahedron: Asymmetry 17 (2006) 234*



(4-Nitro)phenyl 2,3,4,5-tetra-*O*-benzoyl- $\alpha$ -L-idoseptanoside

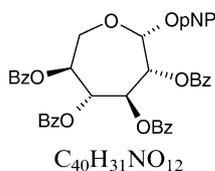
Ee = 100%

$[\alpha]_D^{20} = -23.8$  (*c* 2.1, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality: D-glucuronic acid as starting material

Andreas Tauss, Andreas J. Steiner, Arnold E. Stütz,\* Chris A. Tarling,  
Stephen G. Withers and Tanja M. Wrodnigg

*Tetrahedron: Asymmetry 17 (2006) 234*



(4-Nitro)phenyl 2,3,4,5-tetra-*O*-benzoyl- $\beta$ -L-idoseptanoside

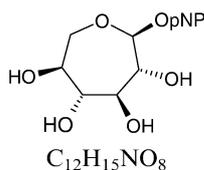
Ee = 100%

$[\alpha]_D^{20} = +79.0$  (*c* 2.3, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality: D-glucuronic acid as starting material

Andreas Tauss, Andreas J. Steiner, Arnold E. Stütz,\* Chris A. Tarling,  
Stephen G. Withers and Tanja M. Wrodnigg

*Tetrahedron: Asymmetry 17 (2006) 234*



(4-Nitro)phenyl  $\alpha$ -L-idoseptanoside

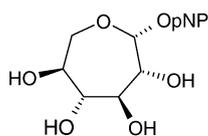
Ee = 100%

$[\alpha]_D^{20} = -169.6$  (*c* 0.87, MeOH)

Source of chirality: D-glucuronic acid as starting material

Andreas Tauss, Andreas J. Steiner, Arnold E. Stütz,\* Chris A. Tarling,  
Stephen G. Withers and Tanja M. Wrodnigg

*Tetrahedron: Asymmetry 17 (2006) 234*



(4-Nitro)phenyl  $\beta$ -L-idoseptanoside

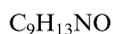
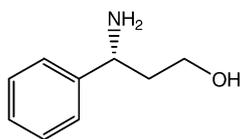
Ee = 100%

$[\alpha]_D^{20} = +94.5$  (c 0.59, MeOH)

Source of chirality: D-glucuronic acid as starting material

Nitin W. Fadnavis,\* Kasiraman R. Radhika and A. Vedamayee Devi

*Tetrahedron: Asymmetry 17 (2006) 240*



(*R*)-3-Amino-3-phenyl-1-propanol

Ee >99%

$[\alpha]_D^{25} = +2.8$  (c 0.57, ethanol)

Source of chirality: enzymatic resolution

Absolute configuration: (*R*)

Nitin W. Fadnavis,\* Kasiraman R. Radhika and A. Vedamayee Devi

*Tetrahedron: Asymmetry 17 (2006) 240*



(*R*)-3-Amino-3-phenyl-1-propanol hydrochloride

Ee >99%

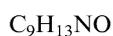
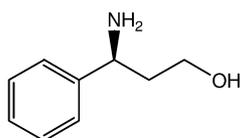
$[\alpha]_D^{25} = -30.6$  (c 1, ethanol)

Source of chirality: enzymatic resolution

Absolute configuration: (*R*)

Nitin W. Fadnavis,\* Kasiraman R. Radhika and A. Vedamayee Devi

*Tetrahedron: Asymmetry 17 (2006) 240*



(*S*)-3-Amino-3-phenyl-1-propanol

Ee >99%

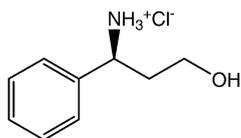
$[\alpha]_D^{25} = -2.75$  (c 0.57, ethanol)

Source of chirality: enzymatic resolution

Absolute configuration: (*S*)

Nitin W. Fadnavis,\* Kasiraman R. Radhika and A. Vedamayee Devi

*Tetrahedron: Asymmetry 17 (2006) 240*



C<sub>9</sub>H<sub>14</sub>ClNO

(*S*)-3-Amino-3-phenyl-1-propanol hydrochloride

Ee >99%

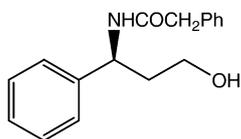
[α]<sub>D</sub><sup>25</sup> = +30.5 (c 1, ethanol)

Source of chirality: enzymatic resolution

Absolute configuration: (*S*)

Nitin W. Fadnavis,\* Kasiraman R. Radhika and A. Vedamayee Devi

*Tetrahedron: Asymmetry 17 (2006) 240*



C<sub>17</sub>H<sub>19</sub>NO<sub>2</sub>

(*S*)-3-[*N*-(Phenylacetyl)amino]-3-phenyl-1-propanol

Ee >99%

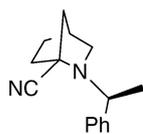
[α]<sub>D</sub><sup>25</sup> = -51.6 (c 1, ethanol)

Source of chirality: enzymatic resolution

Absolute configuration: (*S*)

Oleksandr O. Grygorenko, Oleksiy S. Artamonov,  
Gennady V. Palamarchuk, Roman I. Zubatyuk,  
Oleg V. Shishkin and Igor V. Komarov\*

*Tetrahedron: Asymmetry 17 (2006) 252*



(1*R*,4*S*)-2-((1'*S*)-1-Phenylethyl)-2-azabicyclo[2.2.1]heptane-1-carbonitrile

Ee = 100%

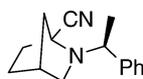
[α]<sub>D</sub> = -5.1 (c 0.66, MeOH)

Source of chirality: separation of diastereomers

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

Oleksandr O. Grygorenko, Oleksiy S. Artamonov,  
Gennady V. Palamarchuk, Roman I. Zubatyuk,  
Oleg V. Shishkin and Igor V. Komarov\*

*Tetrahedron: Asymmetry 17 (2006) 252*



(1*S*,4*R*)-2-((1'*S*)-1-Phenylethyl)-2-azabicyclo[2.2.1]heptane-1-carbonitrile

Ee = 100%

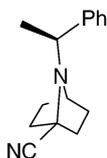
[α]<sub>D</sub> = -43.3 (c 0.60, MeOH)

Source of chirality: separation of diastereomers

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

Oleksandr O. Grygorenko, Oleksiy S. Artamonov,  
Gennady V. Palamarchuk, Roman I. Zubatyuk,  
Oleg V. Shishkin and Igor V. Komarov\*

*Tetrahedron: Asymmetry* 17 (2006) 252



7-((1'*S*)-1-Phenylethyl)-7-azabicyclo[2.2.1]heptane-1-carbonitrile

Ee = 100%

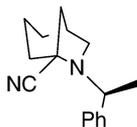
$[\alpha]_D = -37.6$  (*c* 0.84, MeOH)

Source of chirality: *S*-(-)- $\alpha$ -phenylethylamine

Absolute configuration: (1'*S*)

Oleksandr O. Grygorenko, Oleksiy S. Artamonov,  
Gennady V. Palamarchuk, Roman I. Zubatyuk,  
Oleg V. Shishkin and Igor V. Komarov\*

*Tetrahedron: Asymmetry* 17 (2006) 252



(1*S*,5*R*)-6-((1'*S*)-1-Phenylethyl)-6-azabicyclo[3.2.1]octane-5-carbonitrile

Ee = 100%

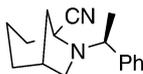
$[\alpha]_D = -18.6$  (*c* 0.16, MeOH)

Source of chirality: separation of diastereomers

Absolute configuration: (1*S*,5*R*,1'*S*)

Oleksandr O. Grygorenko, Oleksiy S. Artamonov,  
Gennady V. Palamarchuk, Roman I. Zubatyuk,  
Oleg V. Shishkin and Igor V. Komarov\*

*Tetrahedron: Asymmetry* 17 (2006) 252



(1*R*,5*S*)-6-((1'*S*)-1-Phenylethyl)-6-azabicyclo[3.2.1]octane-5-carbonitrile

Ee = 100%

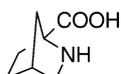
$[\alpha]_D = -26.2$  (*c* 0.54, MeOH)

Source of chirality: separation of diastereomers

Absolute configuration: (1*R*,5*S*,1'*S*)

Oleksandr O. Grygorenko, Oleksiy S. Artamonov,  
Gennady V. Palamarchuk, Roman I. Zubatyuk,  
Oleg V. Shishkin and Igor V. Komarov\*

*Tetrahedron: Asymmetry* 17 (2006) 252



(1*S*,4*R*)-2-Azabicyclo[2.2.1]heptane-1-carboxylic acid

Ee = 100%

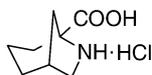
$[\alpha]_D = -13.7$  (*c* 0.26, MeOH)

Source of chirality: separation of diastereomers

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

Oleksandr O. Grygorenko, Oleksiy S. Artamonov,  
Gennady V. Palamarchuk, Roman I. Zubatyuk,  
Oleg V. Shishkin and Igor V. Komarov\*

*Tetrahedron: Asymmetry 17 (2006) 252*



(1*R*,5*S*)-6-Azabicyclo[3.2.1]octane-5-carboxylic acid hydrochloride

Ee = 100%

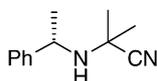
$[\alpha]_D = -19.9$  (*c* 1.30, MeOH)

Source of chirality: separation of diastereomers

Absolute configuration: (1*R*,5*S*)

Oleksandr O. Grygorenko, Oleksiy S. Artamonov,  
Gennady V. Palamarchuk, Roman I. Zubatyuk,  
Oleg V. Shishkin and Igor V. Komarov\*

*Tetrahedron: Asymmetry 17 (2006) 252*



2-Methyl-2-(((1'*S*)-1-phenylethyl)amino)propanenitrile

Ee = 100%

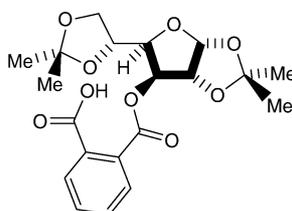
$[\alpha]_D = -146.3$  (*c* 0.64, MeOH)

Source of chirality: (*S*)-(-)- $\alpha$ -phenylethylamine

Absolute configuration: (1'*S*)

Hari Babu Mereyala,\* Sreenivasulu Reddy Koduru and  
Venkata Narasimhaji Cheemalapati

*Tetrahedron: Asymmetry 17 (2006) 259*



C<sub>20</sub>H<sub>24</sub>O<sub>9</sub>

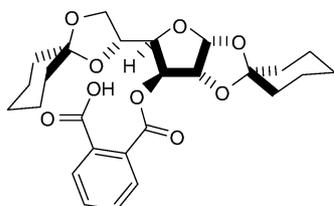
3-(1,2:5,6-Di-*O*-isopropylidene- $\alpha$ -D-glucufuranosyl)-hydrogen phthalate

$[\alpha]_D = -9.5$  (*c* 1.0, EtOH)

Source of chirality: D-glucose

Hari Babu Mereyala,\* Sreenivasulu Reddy Koduru and  
Venkata Narasimhaji Cheemalapati

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C<sub>26</sub>H<sub>32</sub>O<sub>9</sub>

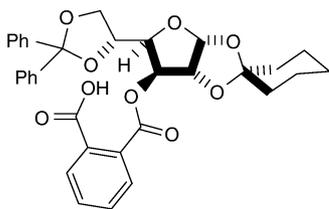
3-(1,2:5,6-Di-*O*-isopropylidene- $\alpha$ -D-glucufuranosyl)-hydrogen phthalate

$[\alpha]_D = -7.2$  (*c* 1.0, EtOH)

Source of chirality: D-glucose

Hari Babu Meryala,\* Sreenivasulu Reddy Koduru and Venkata Narasimhaji Cheemalapati

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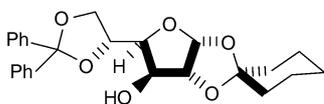
$[\alpha]_D = -43.2$  (*c* 1.0, MeOH)  
Source of chirality: D-glucose

$C_{33}H_{32}O_9$

3-(1,2-*O*-Cyclohexylidene-5,6-*O*-diphenylmethylidene- $\alpha$ -D-glucofuranosyl)-hydrogen phthalate

Hari Babu Meryala,\* Sreenivasulu Reddy Koduru and Venkata Narasimhaji Cheemalapati

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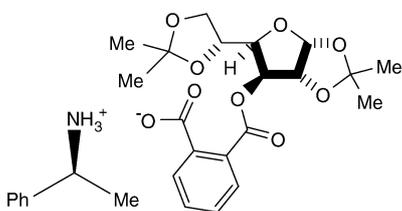
$[\alpha]_D = +30.8$  (*c* 1.0, MeOH)  
Source of chirality: D-glucose

$C_{25}H_{28}O_6$

1,2-*O*-Cyclohexylidene-5,6-*O*-diphenylmethylidene- $\alpha$ -D-glucofuranose

Hari Babu Meryala,\* Sreenivasulu Reddy Koduru and Venkata Narasimhaji Cheemalapati

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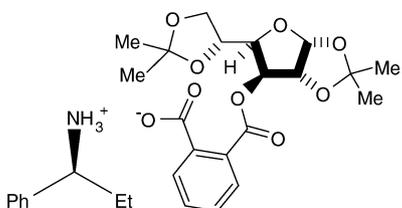
$[\alpha]_D = -42.0$  (*c* 1.0, EtOH)  
Source of chirality: D-glucose

$C_{28}H_{35}NO_9$

(*S*)-1-Phenylethylammonium 3-(1,2:5,6-di-*O*-isopropylidene- $\alpha$ -D-glucofuranosyl)-hydrogen phthalate

Hari Babu Meryala,\* Sreenivasulu Reddy Koduru and Venkata Narasimhaji Cheemalapati

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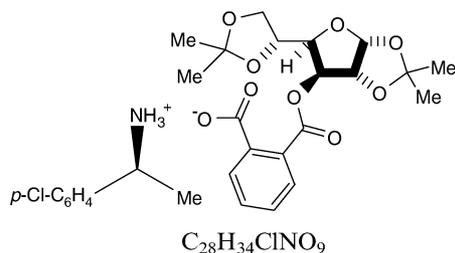
$[\alpha]_D = -24.0$  (*c* 1.0, EtOH)  
Source of chirality: D-glucose

$C_{29}H_{37}NO_9$

(*S*)-1-Phenylethylammonium 3-(1,2:5,6-di-*O*-isopropylidene- $\alpha$ -D-glucofuranosyl)-hydrogen phthalate

Hari Babu Mereyala,\* Sreenivasulu Reddy Koduru and Venkata Narasimhaji Cheemalapati

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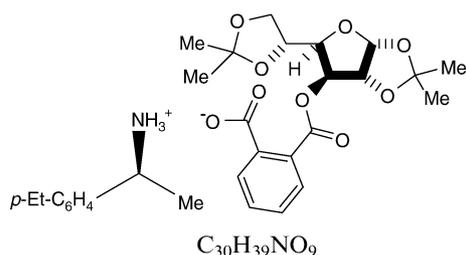


$[\alpha]_D = -31.0$  (*c* 1.0, EtOH)  
Source of chirality: D-glucose

(*S*)-1-(4-Chlorophenyl)ethylammonium 3-(1,2:5,6-di-*O*-isopropylidene- $\alpha$ -D-glucofuranosyl)-hydrogen phthalate

Hari Babu Mereyala,\* Sreenivasulu Reddy Koduru and Venkata Narasimhaji Cheemalapati

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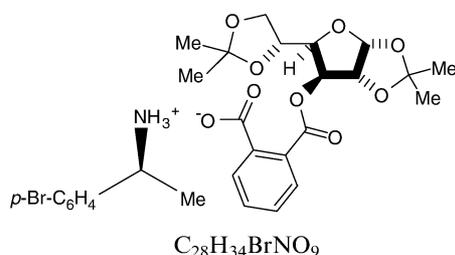


$[\alpha]_D = -43.0$  (*c* 1.0, EtOH)  
Source of chirality: D-glucose

(*S*)-1-(4-Ethylphenyl)ethylammonium 3-(1,2:5,6-di-*O*-isopropylidene- $\alpha$ -D-glucofuranosyl)-hydrogen phthalate

Hari Babu Mereyala,\* Sreenivasulu Reddy Koduru and Venkata Narasimhaji Cheemalapati

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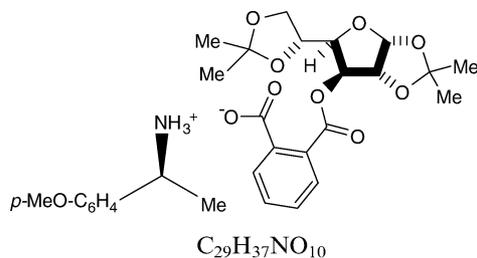


$[\alpha]_D = -35.0$  (*c* 1.0, EtOH)  
Source of chirality: D-glucose

(*S*)-1-(4-Bromophenyl)ethylammonium 3-(1,2:5,6-di-*O*-isopropylidene- $\alpha$ -D-glucofuranosyl)-hydrogen phthalate

Hari Babu Mereyala,\* Sreenivasulu Reddy Koduru and Venkata Narasimhaji Cheemalapati

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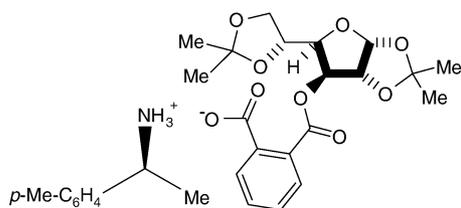


$[\alpha]_D = -43.0$  (*c* 1.0, EtOH)  
Source of chirality: D-glucose

(*S*)-1-(4-Methoxyphenyl)ethylammonium 3-(1,2:5,6-di-*O*-isopropylidene- $\alpha$ -D-glucofuranosyl)-hydrogen phthalate

Hari Babu Meryala,\* Sreenivasulu Reddy Koduru and Venkata Narasimhaji Cheemalapati

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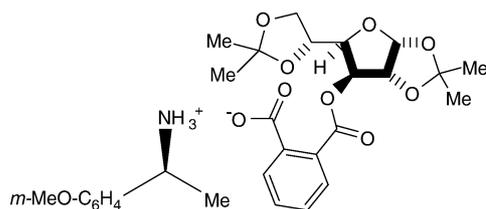
$[\alpha]_D = -34.0$  (*c* 1.0, EtOH)  
Source of chirality: D-glucose

$C_{29}H_{37}NO_9$

(*S*)-1-(4-Methylphenyl)ethylammonium 3-(1,2:5,6-di-*O*-isopropylidene- $\alpha$ -D-glucofuranosyl)-hydrogen phthalate

Hari Babu Meryala,\* Sreenivasulu Reddy Koduru and Venkata Narasimhaji Cheemalapati

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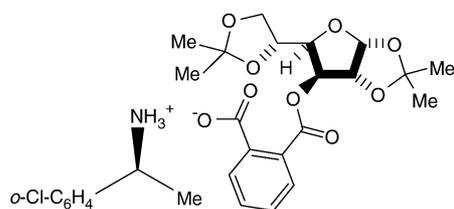
$[\alpha]_D = -33.0$  (*c* 1.0, EtOH)  
Source of chirality: D-glucose

$C_{29}H_{37}NO_{10}$

(*S*)-1-(3-Methoxyphenyl)ethylammonium 3-(1,2:5,6-di-*O*-isopropylidene- $\alpha$ -D-glucofuranosyl)-hydrogen phthalate

Hari Babu Meryala,\* Sreenivasulu Reddy Koduru and Venkata Narasimhaji Cheemalapati

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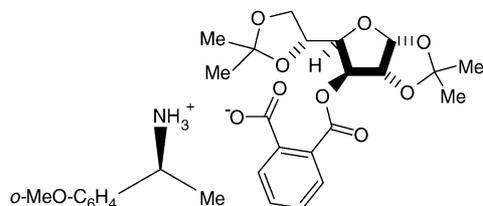
$[\alpha]_D = -45.0$  (*c* 1.0, EtOH)  
Source of chirality: D-glucose

$C_{28}H_{34}ClNO_9$

(*S*)-1-(2-Chlorophenyl)ethylammonium 3-(1,2:5,6-di-*O*-isopropylidene- $\alpha$ -D-glucofuranosyl)-hydrogen phthalate

Hari Babu Meryala,\* Sreenivasulu Reddy Koduru and Venkata Narasimhaji Cheemalapati

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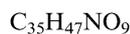
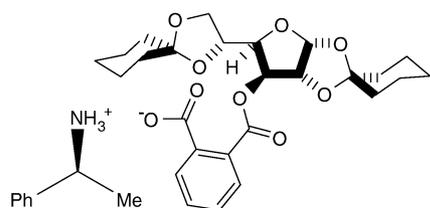
$[\alpha]_D = -92.0$  (*c* 1.0, EtOH)  
Source of chirality: D-glucose

$C_{29}H_{37}NO_{10}$

(*S*)-1-(2-Methoxyphenyl)ethylammonium 3-(1,2:5,6-di-*O*-isopropylidene- $\alpha$ -D-glucofuranosyl)-hydrogen phthalate

Hari Babu Mereyala,\* Sreenivasulu Reddy Koduru and Venkata Narasimhaji Cheemalapati

*Tetrahedron: Asymmetry 17 (2006) 259*



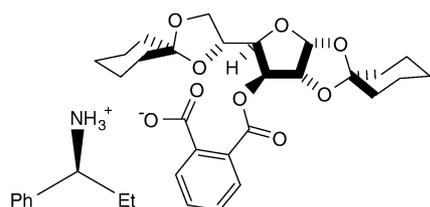
(*S*)-1-Phenylethylammonium 3-(1,2:5,6-di-*O*-cyclohexylidene- $\alpha$ -D-glucofuranosyl)-hydrogen phthalate

$[\alpha]_D = -40.0$  (*c* 1.0, EtOH)

Source of chirality: D-glucose

Hari Babu Mereyala,\* Sreenivasulu Reddy Koduru and Venkata Narasimhaji Cheemalapati

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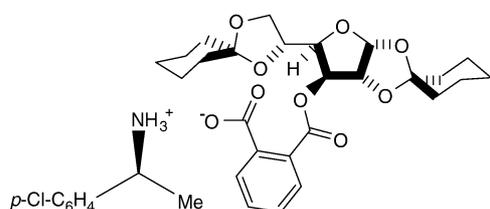
(*S*)-1-Phenylethylammonium 3-(1,2:5,6-di-*O*-cyclohexylidene- $\alpha$ -D-glucofuranosyl)-hydrogen phthalate

$[\alpha]_D = -27.0$  (*c* 1.0, EtOH)

Source of chirality: D-glucose

Hari Babu Mereyala,\* Sreenivasulu Reddy Koduru and Venkata Narasimhaji Cheemalapati

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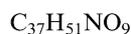
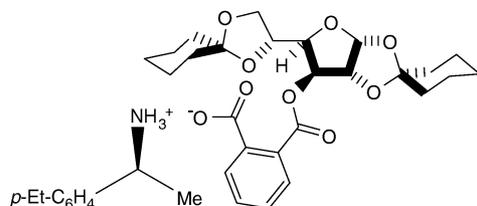
(*S*)-1-(4-Chlorophenyl)ethylammonium 3-(1,2:5,6-di-*O*-cyclohexylidene- $\alpha$ -D-glucofuranosyl)-hydrogen phthalate

$[\alpha]_D = -35.0$  (*c* 1.0, EtOH)

Source of chirality: D-glucose

Hari Babu Mereyala,\* Sreenivasulu Reddy Koduru and Venkata Narasimhaji Cheemalapati

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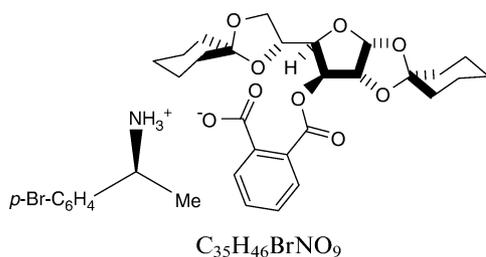
(*S*)-1-(4-Ethylphenyl)ethylammonium 3-(1,2:5,6-di-*O*-cyclohexylidene- $\alpha$ -D-glucofuranosyl)-hydrogen phthalate

$[\alpha]_D = -29.0$  (*c* 1.0, EtOH)

Source of chirality: D-glucose

Hari Babu Meryala,\* Sreenivasulu Reddy Koduru and Venkata Narasimhaji Cheemalapati

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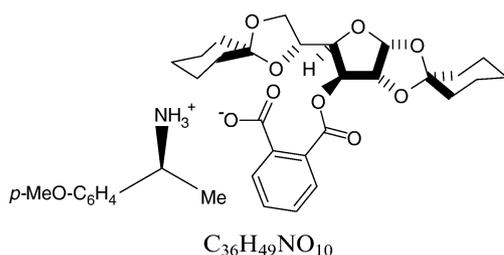


$[\alpha]_D = -35.0$  (*c* 1.0, EtOH)  
Source of chirality: D-glucose

(*S*)-1-(4-Bromophenyl)ethylammonium 3-(1,2:5,6-di-*O*-cyclohexylidene- $\alpha$ -D-glucufuranosyl)-hydrogen phthalate

Hari Babu Meryala,\* Sreenivasulu Reddy Koduru and Venkata Narasimhaji Cheemalapati

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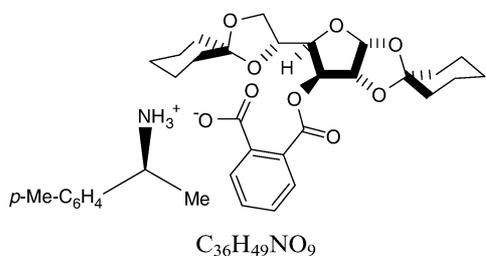


$[\alpha]_D = -38.0$  (*c* 1.0, EtOH)  
Source of chirality: D-glucose

(*S*)-1-(4-Methoxyphenyl)ethylammonium 3-(1,2:5,6-di-*O*-cyclohexylidene- $\alpha$ -D-glucufuranosyl)-hydrogen phthalate

Hari Babu Meryala,\* Sreenivasulu Reddy Koduru and Venkata Narasimhaji Cheemalapati

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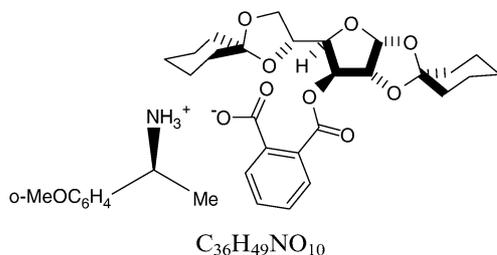


$[\alpha]_D = -40.0$  (*c* 1.0, EtOH)  
Source of chirality: D-glucose

(*S*)-1-(4-Methylphenyl)ethylammonium 3-(1,2:5,6-di-*O*-cyclohexylidene- $\alpha$ -D-glucufuranosyl)-hydrogen phthalate

Hari Babu Meryala,\* Sreenivasulu Reddy Koduru and Venkata Narasimhaji Cheemalapati

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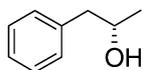


$[\alpha]_D = -33.0$  (*c* 1.0, EtOH)  
Source of chirality: D-glucose

(*S*)-1-(3-Methoxyphenyl)ethylammonium 3-(1,2:5,6-di-*O*-cyclohexylidene- $\alpha$ -D-glucufuranosyl)-hydrogen phthalate

Balázs Erdélyi,\* Antal Szabó, Gábor Seres, László Birincsik,  
József Ivanics, Gábor Sztzker and László Poppe

*Tetrahedron: Asymmetry 17 (2006) 268*



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

(*S*)-1-Phenylpropan-2-ol

Ee >99% (by HPLC on chiral column)

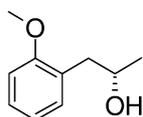
$[\alpha]_D^{25} = +42.2$  (c 1.0, CHCl<sub>3</sub>)

Source of chirality: yeast-mediated reduction

Absolute configuration: *S*

Balázs Erdélyi,\* Antal Szabó, Gábor Seres, László Birincsik,  
József Ivanics, Gábor Sztzker and László Poppe

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C<sub>10</sub>H<sub>14</sub>O<sub>2</sub>

(*S*)-1-(2-Methoxyphenyl)propan-2-ol

Ee >93% (by HPLC on chiral column)

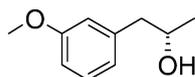
$[\alpha]_D^{25} = +39.8$  (c 1.0, CHCl<sub>3</sub>)

Source of chirality: yeast-mediated reduction

Absolute configuration: *S*

Balázs Erdélyi,\* Antal Szabó, Gábor Seres, László Birincsik,  
József Ivanics, Gábor Sztzker and László Poppe

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C<sub>10</sub>H<sub>14</sub>O<sub>2</sub>

(*S*)-1-(3-Methoxyphenyl)propan-2-ol

Ee >93% (by HPLC on chiral column)

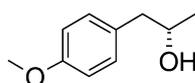
$[\alpha]_D^{25} = +30.3$  (c 1.0, CHCl<sub>3</sub>)

Source of chirality: yeast-mediated reduction

Absolute configuration: *S*

Balázs Erdélyi,\* Antal Szabó, Gábor Seres, László Birincsik,  
József Ivanics, Gábor Sztzker and László Poppe

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C<sub>10</sub>H<sub>14</sub>O<sub>2</sub>

(*S*)-1-(4-Methoxyphenyl)propan-2-ol

Ee >99% (by HPLC on chiral column)

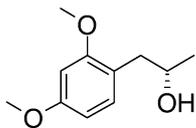
$[\alpha]_D^{25} = +34.9$  (c 1.0, CHCl<sub>3</sub>)

Source of chirality: yeast-mediated reduction

Absolute configuration: *S*

Balázs Erdélyi,\* Antal Szabó, Gábor Seres, László Birincsik,  
József Ivanics, Gábor Sztzker and László Poppe

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$C_{11}H_{16}O_3$

(*S*)-1-(2,4-Dimethoxyphenyl)propan-2-ol

Ee >99% (by HPLC on chiral column)

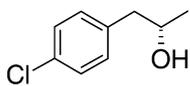
$[\alpha]_D^{25} = +19.7$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: yeast-mediated reduction

Absolute configuration: *S*

Balázs Erdélyi,\* Antal Szabó, Gábor Seres, László Birincsik,  
József Ivanics, Gábor Sztzker and László Poppe

*Tetrahedron: Asymmetry 17 (2006) 268*



$C_9H_{11}ClO$

(*S*)-1-(4-Chlorophenyl)propan-2-ol

Ee >99% (by HPLC on chiral column)

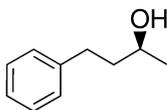
$[\alpha]_D^{25} = +31.0$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: yeast-mediated reduction

Absolute configuration: *S*

Balázs Erdélyi,\* Antal Szabó, Gábor Seres, László Birincsik,  
József Ivanics, Gábor Sztzker and László Poppe

*Tetrahedron: Asymmetry 17 (2006) 268*



$C_{10}H_{14}O$

(*S*)-1-Phenylbutan-2-ol

Ee >93% (by HPLC on chiral column)

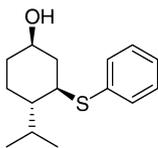
$[\alpha]_D^{25} = +12.3$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: yeast-mediated reduction

Absolute configuration: *S*

Dan Isaksson, Kristina Sjödin and Hans-Erik Högberg\*

*Tetrahedron: Asymmetry 17 (2006) 275*



$C_{15}H_{22}OS$

(1*R*,3*R*,4*S*)-4-Isopropyl-3-(phenylsulfanyl)cyclohexanol

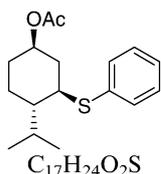
$[\alpha]_D^{20} = -118$  (*c* 1.94, EtOH)

Source of chirality: Lipase catalysed resolution

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

Dan Isaksson, Kristina Sjödin and Hans-Erik Högberg\*

*Tetrahedron: Asymmetry 17 (2006) 275*



Acetic acid (1*R*,3*R*,4*S*)-4-isopropyl-3-(phenylsulfanyl)cyclohexyl ester

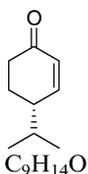
$[\alpha]_D^{20} = -29.7$  (*c* 2.19, EtOH)

Source of chirality: Lipase catalysed resolution

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

Dan Isaksson, Kristina Sjödin and Hans-Erik Högberg\*

*Tetrahedron: Asymmetry 17 (2006) 275*



(4*S*)-4-Isopropyl-2-cyclohexene-1-one

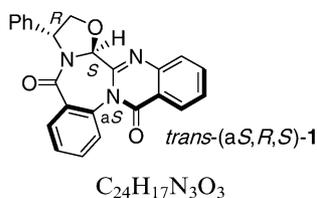
$[\alpha]_D^{20} = +89.9$  (*c* 2.27, EtOH)

Source of chirality: Lipase catalysed resolution

Absolute configuration: (4*S*)

Maël Penhoat, Pierre Bohn, Georges Dupas, Cyril Papamicaël,  
Francis Marsais and Vincent Levacher\*

*Tetrahedron: Asymmetry 17 (2006) 281*



*trans*-(3*R*,15*bS*,*aS*)-2,3-Dihydro-15*bH*-benz[*e*]quinazolino [3,2-*c*]oxazolo[3,2-*a*][1,4]diazepin-5-one

Ee >98%

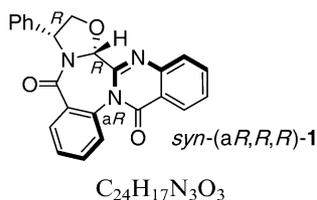
$[\alpha]_D^{20} = -93.2$  (*c* 3.4, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality: stereoselective synthesis

Absolute configuration: *aS*,*R*,*S*

Maël Penhoat, Pierre Bohn, Georges Dupas, Cyril Papamicaël,  
Francis Marsais and Vincent Levacher\*

*Tetrahedron: Asymmetry 17 (2006) 281*



*syn*-(3*R*,15*bR*,*aR*)-2,3-Dihydro-15*bH*-benz[*e*]quinazolino [3,2-*c*]oxazolo[3,2-*a*][1,4]diazepin-5-one

Ee >98%

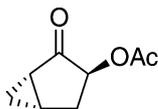
$[\alpha]_D^{20} = +130.9$  (*c* 7.15, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality: stereoselective synthesis

Absolute configuration: *aR*,*R*,*R*

Fazilet Devrim Özdemirhan, Murat Çelik, Selin Atlı and Cihangir Tanyeli\*

*Tetrahedron: Asymmetry 17 (2006) 287*



(1*S*,3*S*,5*S*)-(-)-2-Oxobicyclo[3.1.0]hexan-3-yl acetate

Ee = 96%

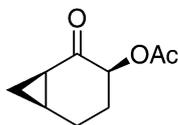
$[\alpha]_D^{20} = -22.0$  (*c* 0.2,  $CHCl_3$ )

Source of chirality: enzymatic resolution

Absolute configuration: 1*S*,3*S*,5*S*

Fazilet Devrim Özdemirhan, Murat Çelik, Selin Atlı and Cihangir Tanyeli\*

*Tetrahedron: Asymmetry 17 (2006) 287*



(1*R*,3*S*,6*S*)-(-)-2-Oxobicyclo[4.1.0]heptan-3-yl acetate

Ee = 97%

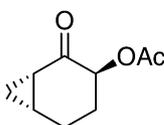
$[\alpha]_D^{20} = -22.05$  (*c* 0.2,  $CHCl_3$ )

Source of chirality: enzymatic resolution

Absolute configuration: 1*R*,3*S*,6*S*

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*Tetrahedron: Asymmetry 17 (2006) 287*



(1*S*,3*S*,6*R*)-(+)-2-Oxobicyclo[4.1.0]heptan-3-yl acetate

Ee = 97%

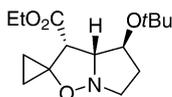
$[\alpha]_D^{20} = +5.05$  (*c* 0.2,  $CHCl_3$ )

Source of chirality: enzymatic resolution

Absolute configuration: 1*S*,3*S*,6*R*

Federica Pisaneschi, Michela Piacenti, Franca M. Cordero and Alberto Brandi\*

*Tetrahedron: Asymmetry 17 (2006) 292*



Ethyl (3'*R*,3a'*R*,4'*S*)-4'-*tert*-butoxytetrahydro-3'*H*-spiro[cyclopropane-1,2'-pyrrolo[1,2-*b*]isoxazole]-3'-carboxylate

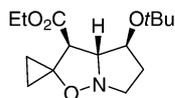
$[\alpha]_D^{23} = +55.2$  (*c* 0.5,  $CHCl_3$ )

Source of chirality: L-malic acid

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

Federica Pisaneschi, Michela Piacenti, Franca M. Cordero and Alberto Brandi\*

*Tetrahedron: Asymmetry 17 (2006) 292*



Ethyl (3'S,3a'R,4'S)-4'-tert-butoxytetrahydro-3'H-spiro[cyclopropane-1,2'-pyrrolo[1,2-b]isoxazole]-3'-carboxylate

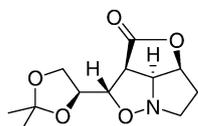
$$[\alpha]_D^{23} = +115.0 (c 0.4, CHCl_3)$$

Source of chirality: L-malic acid

Absolute configuration: (3'S,3a'R,4'S)

Federica Pisaneschi, Michela Piacenti, Franca M. Cordero and Alberto Brandi\*

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(2aS,3S,6aS,6bS)-3-[(4S)-2,2-Dimethyl-1,3-dioxolan-4-yl]-hexahydro-2H-1,4-dioxo-4a-azacyclopenta[cd]pentalen-2-one

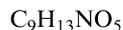
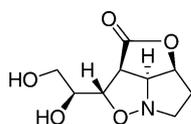
$$[\alpha]_D^{25} = +27.8 (c 1.3, CHCl_3)$$

Source of chirality: chiral pool (L-malic acid and mannitol) and diastereoselective 1,3-dipolar cycloaddition

Absolute configuration: (2aS,3S,6aS,6bS); (4S)

Federica Pisaneschi, Michela Piacenti, Franca M. Cordero and Alberto Brandi\*

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(2aS,3S,6aS,6bS)-3-[(1S)-1,2-Dihydroxyethyl]hexahydro-2H-1,4-dioxo-4a-azacyclopenta[cd]pentalen-2-one

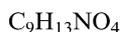
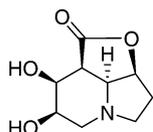
$$[\alpha]_D^{20} = +28.4 (c 0.4, MeOH)$$

Source of chirality: chiral pool (L-malic acid and mannitol) and diastereoselective 1,3-dipolar cycloaddition

Absolute configuration: (2aS,3S,6aS,6bS); (1S)

Federica Pisaneschi, Michela Piacenti, Franca M. Cordero and Alberto Brandi\*

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(2aS,3S,4R,8aS,8bS)-3,4-Dihydroxyoctahydro-2H-furo[4,3,2-hi]-indolizin-2-one

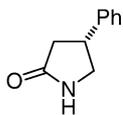
$$[\alpha]_D^{20} = +5.6 (c 0.2, MeOH)$$

Source of chirality: chiral pool (L-malic acid and mannitol) and diastereoselective 1,3-dipolar cycloaddition

Absolute configuration: (2aS,3S,4R,8aS,8bS)

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C<sub>10</sub>H<sub>11</sub>NO  
(*R*)-4-Phenyl-2-pyrrolidinone

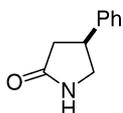
Ee: 75%

$[\alpha]_D^{22} = -20$  (*c* 0.40, MeOH)

Source of chirality: asymmetric C–H insertion  
catalyzed by Rh<sub>2</sub>(*S*-PTTL)<sub>4</sub>

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*Tetrahedron: Asymmetry 17 (2006) 297*



C<sub>10</sub>H<sub>11</sub>NO  
(*S*)-4-Phenyl-2-pyrrolidinone

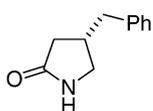
Ee: 35%

$[\alpha]_D^{22} = +16$  (*c* 0.63, MeOH)

Source of chirality: asymmetric C–H insertion  
catalyzed by Rh<sub>2</sub>(4*R*-MEAZ)<sub>4</sub>

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C<sub>11</sub>H<sub>13</sub>NO  
(*S*)-4-Benzyl-2-pyrrolidinone

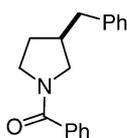
Ee: 64%

$[\alpha]_D^{22} = -3.1$  (*c* 0.8, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality: asymmetric C–H insertion  
catalyzed by Rh<sub>2</sub>(*S*-PTTL)<sub>4</sub>

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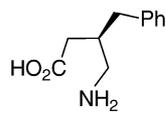
*Tetrahedron: Asymmetry 17 (2006) 297*



C<sub>11</sub>H<sub>19</sub>NO  
(*R*)-1-Benzoyl-4-benzyl-2-pyrrolidinone

$[\alpha]_D^{22} = -28.6$  (*c* 0.35, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality: asymmetric synthesis



(*R*)- $\beta$ -Benzyl- $\gamma$ -aminobutyric acid

$[\alpha]_D^{22} = +6.25$  (*c* 1.2, MeOH)

Source of chirality: asymmetric synthesis