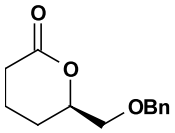
Nathalie Berezina, Véronique Alphand and Roland Furstoss*

Tetrahedron: Asymmetry *13 (2002) 1953*

$[\alpha]_D^{25} = -8$ (*c* 1.1, $CHCl_3$)
ee = 96%

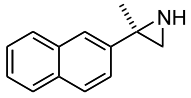


$C_{13}H_{16}O_3$
(*R*)-6-Benzyloxymethyltetrahydropyran-2-one

Erik Risberg and Peter Somfai*

Tetrahedron: Asymmetry *13 (2002) 1957*

Ee = 12%
Source of chirality: asymmetric methylation with MeLi
Absolute configuration: *R*

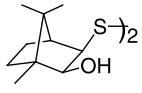


$C_{13}H_{13}N$
(*R*)-2-Methyl-2-(2-naphthyl)aziridine

Naoyoshi Maezaki, Suguru Yagi, Shizuka Ohsawa, Hirofumi Ohishi and Tetsuaki Tanaka*

Tetrahedron: Asymmetry *13 (2002) 1961*

$[\alpha]_D^{25}$ −70.5 (*c* 1.03, $CHCl_3$)
Source of chirality: camphor
Absolute configuration: 1*S*,2*R*,3*S*,4*R*

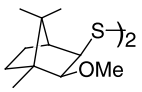


$C_{20}H_{34}O_2S_2$
(1*S*,2*R*,3*S*,4*R*)-3-Hydroxy-4,7,7-trimethylbicyclo[2.2.1]hept-2-yl disulfide

Naoyoshi Maezaki, Suguru Yagi, Shizuka Ohsawa, Hirofumi Ohishi and Tetsuaki Tanaka*

Tetrahedron: Asymmetry *13 (2002) 1961*

$[\alpha]_D^{25}$ −54.1 (*c* 1.03, $CHCl_3$)
Source of chirality: camphor
Absolute configuration: 1*S*,2*R*,3*S*,4*R*

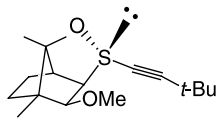


$C_{22}H_{38}O_2S_2$
(1*S*,2*R*,3*S*,4*R*)-3-Methoxy-4,7,7-trimethylbicyclo[2.2.1]hept-2-yl disulfide

Naoyoshi Maezaki, Suguru Yagi, Shizuka Ohsawa, Hirofumi Ohishi and Tetsuaki Tanaka*

Tetrahedron: Asymmetry *13 (2002) 1961*

$[\alpha]_D^{25}$ +55.2 (*c* 1.15, $CHCl_3$)
Source of chirality: camphor and alkynylation
Absolute configuration: S_s,1*R*,2*S*,3*R*,4*S*



$C_{17}H_{28}O_2S$
(S_s,1*R*,2*S*,3*R*,4*S*)-3-(3,3-Dimethyl-1-butynylsulfinyl)-2-methoxy-1,7,7-trimethylbicyclo[2.2.1]heptane

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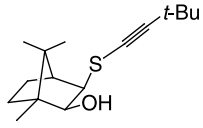
Naoyoshi Maezaki, Suguru Yagi, Shizuka Ohsawa, Hirofumi Ohishi and Tetsuaki Tanaka*

Tetrahedron: Asymmetry *13 (2002) 1961*

$[\alpha]_D^{25}$ +22.7 (*c* 1.03, $CHCl_3$)
Source of chirality: camphor
Absolute configuration: 1*R*,2*S*,3*R*,4*S*



$C_{16}H_{26}OS$
(1*R*,2*S*,3*R*,4*S*)-3-(3,3-Dimethyl-1-butynylsulfenyl)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-ol

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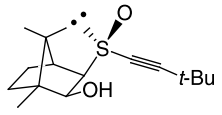
Naoyoshi Maezaki, Suguru Yagi, Shizuka Ohsawa, Hirofumi Ohishi and Tetsuaki Tanaka*

Tetrahedron: Asymmetry *13 (2002) 1961*

$[\alpha]_D^{25}$ −21.05 (*c* 1.02, $CHCl_3$)
Source of chirality: camphor and *m*-CPBA oxidation
Absolute configuration: R_s,1*R*,2*S*,3*R*,4*S*



$C_{16}H_{26}O_2S$
(R_s,1*R*,2*S*,3*R*,4*S*)-3-(3,3-Dimethyl-1-butynylsulfinyl)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-ol

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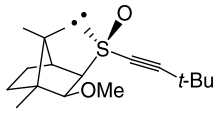
Naoyoshi Maezaki, Suguru Yagi, Shizuka Ohsawa, Hirofumi Ohishi and Tetsuaki Tanaka*

Tetrahedron: Asymmetry *13 (2002) 1961*

$[\alpha]_D^{25}$ −57.1 (*c* 1.02, $CHCl_3$)
Source of chirality: camphor and *m*-CPBA oxidation
Absolute configuration: R_s,1*R*,2*S*,3*R*,4*S*

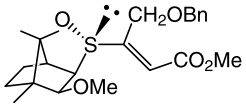


$C_{17}H_{28}O_2S$
(R_s,1*R*,2*S*,3*R*,4*S*)-3-(3,3-Dimethyl-1-butynylsulfinyl)-2-methoxy-1,7,7-trimethylbicyclo[2.2.1]heptane

Naoyoshi Maezaki, Suguru Yagi, Shizuka Ohsawa, Hirofumi Ohishi and Tetsuaki Tanaka*

Tetrahedron: Asymmetry *13 (2002) 1961*

$[\alpha]_D^{25}$ −23.5 (*c* 1.06, $CHCl_3$)
Source of chirality: camphor and sulfinylzincation
Absolute configuration: S_s,1*S*,2*R*,3*S*,4*R*

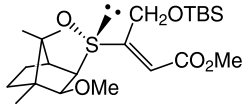


$C_{23}H_{32}O_5S$
Methyl (*E*)-4-Benzyloxy-3-[(S_s,1*S*,2*R*,3*S*,4*R*)-(3-methoxy-4,7,7-trimethylbicyclo[2.2.1]hept-2-yl)sulfinyl]-2-butenoate

Naoyoshi Maezaki, Suguru Yagi, Shizuka Ohsawa, Hirofumi Ohishi and Tetsuaki Tanaka*

Tetrahedron: Asymmetry *13 (2002) 1961*

$[\alpha]_D^{25}$ −34.4 (*c* 1.03, $CHCl_3$)
Source of chirality: camphor and sulfinylzincation
Absolute configuration: S_s,1*S*,2*R*,3*S*,4*R*

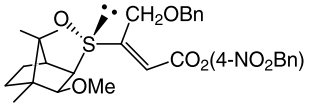


$C_{22}H_{40}O_5SSi$
Methyl (*E*)-4-(*tert*-Butyldimethylsilyloxymethyl)-3-[(S_s,1*S*,2*R*,3*S*,4*R*)-(3-methoxy-4,7,7-trimethylbicyclo[2.2.1]hept-2-yl)sulfinyl]-2-butenoate

Naoyoshi Maezaki, Suguru Yagi, Shizuka Ohsawa, Hirofumi Ohishi and Tetsuaki Tanaka*

Tetrahedron: Asymmetry *13 (2002) 1961*

$[\alpha]_D^{25}$ −7.3 (*c* 0.93, $CHCl_3$)
Source of chirality: camphor and sulfinylzincation
Absolute configuration: S_s,1*S*,2*R*,3*S*,4*R*

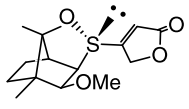


$C_{29}H_{35}NO_7S$
4-Nitrobenzyl (*E*)-4-Benzyloxy-3-[(S_s,1*S*,2*R*,3*S*,4*R*)-(3-methoxy-4,7,7-trimethylbicyclo[2.2.1]hept-2-yl)sulfinyl]-2-butenoate

Naoyoshi Maezaki, Suguru Yagi, Shizuka Ohsawa, Hirofumi Ohishi and Tetsuaki Tanaka*

Tetrahedron: Asymmetry *13 (2002) 1961*

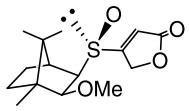
$[\alpha]_D^{25}$+106.0 (*c* 1.00, $CHCl_3$)
Source of chirality: camphor and sulfinylzincation
Absolute configuration: S_s,1*S*,2*R*,3*S*,4*R* (assigned by X-ray analysis)



$C_{15}H_{22}O_4S$
4-[(S_s,1*S*,2*R*,3*S*,4*R*)-(3-Methoxy-4,7,7-trimethylbicyclo[2.2.1]hept-2-yl)sulfinyl]-5*H*-furan-2-one

Naoyoshi Maezaki, Suguru Yagi, Shizuka Ohsawa, Hirofumi Ohishi and Tetsuaki Tanaka*

Tetrahedron: Asymmetry *13 (2002) 1961*

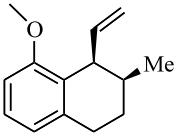


$[\alpha]_D^{25}$ −11.7 (*c* 1.01, $CHCl_3$)
Source of chirality: camphor and sulfinylzincation
Absolute configuration: R_s,1*S*,2*R*,3*S*,4*R*

$C_{15}H_{22}O_4S$
4-[(R_s,1*S*,2*R*,3*S*,4*R*)-(3-Methoxy-4,7,7-trimethylbicyclo[2.2.1]hept-2-yl)sulfinyl]-5*H*-furan-2-one

Claude Dufresne,* David Cretney, Cheuk K. Lau, Vincent Mascitti and Nancy Tsou

Tetrahedron: Asymmetry *13 (2002) 1965*

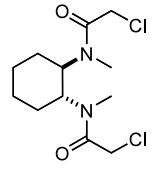


$[\alpha]_D$ = −9.9 (*c* 1.0, acetone)
Source of chirality: (*R*)-(−)-3-bromo-2-methyl-1-propanol

$C_{14}H_{18}O$
(1*S*,2*S*)-8-Methoxy-2-methyl-1-vinyl-1,2,3,4-tetrahydronaphthalene

Marc C. Perry, Xiuhua Cui and Kevin Burgess*

Tetrahedron: Asymmetry *13 (2002) 1969*

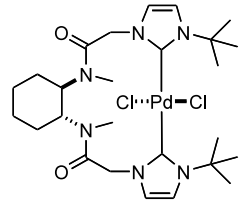


$[\alpha]_D$ = +148.8 (0.2 M, $CHCl_3$)
Source of chirality: (1*R*,2*R*)-1,2-diaminocyclohexane
Absolute configuration: *R*,*R*

$C_{12}H_{20}Cl_2N_2O_2$
(*R*,*R*)-2-Chloro-*N*-[2-(chloroacetylmethylamino)cyclohexyl]-*N*-methylacetamide

Marc C. Perry, Xiuhua Cui and Kevin Burgess*

Tetrahedron: Asymmetry *13 (2002) 1969*

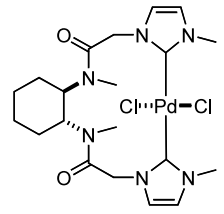


$[\alpha]_D$ = +2.4 (0.05 M, CH_2Cl_2)
Source of chirality: (1*R*,2*R*)-1,2-diaminocyclohexane
Absolute configuration: *R*,*R*

$C_{26}H_{42}Cl_2N_6O_2Pd$

Marc C. Perry, Xiuhua Cui and Kevin Burgess*

Tetrahedron: Asymmetry *13 (2002) 1969*

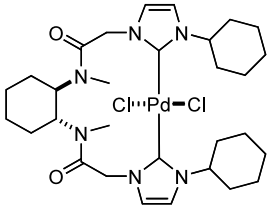


$C_{20}H_{30}Cl_2N_6O_2Pd$

$[\alpha]_D = -75.3$ (0.06 M, CH_2Cl_2)
Source of chirality: (1*R*,2*R*)-1,2-diaminocyclohexane
Absolute configuration: *R*,*R*

Marc C. Perry, Xiuhua Cui and Kevin Burgess*

Tetrahedron: Asymmetry *13 (2002) 1969*

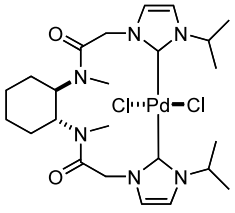


$C_{30}H_{46}Cl_2N_6O_2Pd$

$[\alpha]_D = -89.3$ (0.04 M, CH_2Cl_2)
Source of chirality: (1*R*,2*R*)-1,2-diaminocyclohexane
Absolute configuration: *R*,*R*

Marc C. Perry, Xiuhua Cui and Kevin Burgess*

Tetrahedron: Asymmetry *13 (2002) 1969*

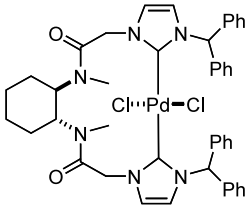


$C_{24}H_{38}Cl_2N_6O_2Pd$

$[\alpha]_D = -59.0$ (0.06 M, CH_2Cl_2)
Source of chirality: (1*R*,2*R*)-1,2-diaminocyclohexane
Absolute configuration: *R*,*R*

Marc C. Perry, Xiuhua Cui and Kevin Burgess*

Tetrahedron: Asymmetry *13 (2002) 1969*

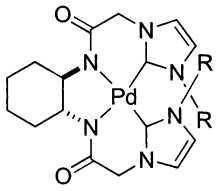


$C_{44}H_{46}Cl_2N_6O_2Pd$

$[\alpha]_D = -17.3$ (0.04 M, CH_2Cl_2)
Source of chirality: (1*R*,2*R*)-1,2-diaminocyclohexane
Absolute configuration: *R*,*R*

Marc C. Perry, Xiuhua Cui and Kevin Burgess*

Tetrahedron: Asymmetry *13 (2002) 1969*

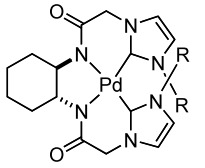


$C_{40}H_{52}N_6O_2Pd$

$[\alpha]_D = -33.6$ (0.03 M, CH_2Cl_2)
Source of chirality: (1*R*,2*R*)-1,2-diaminocyclohexane
Absolute configuration: *R*,*R*

Marc C. Perry, Xiuhua Cui and Kevin Burgess*

Tetrahedron: Asymmetry *13 (2002) 1969*

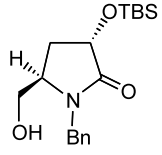


$C_{24}H_{36}N_6O_2Pd$

$[\alpha]_D = +46.5$ (0.01 M, CH_2Cl_2)
Source of chirality: (1*R*,2*R*)-1,2-diaminocyclohexane
Absolute configuration: *R*,*R*

Cristina M. Schuch and Ronaldo A. Pilli*

Tetrahedron: Asymmetry *13 (2002) 1973*

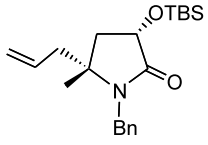


$C_{18}H_{29}NO_3Si$
(3*S*,5*R*)-3-[(*tert*-Butyldimethylsilyl)oxy]-1-benzyl-5-hydroxymethyl-2-pyrrolidinone

$[\alpha]_D^{20} = -143.6$ (*c* 3.6, EtOAc)
Source of chirality: (*S*)-malic acid
Absolute configuration: 3*S*,5*R*

Cristina M. Schuch and Ronaldo A. Pilli*

Tetrahedron: Asymmetry *13 (2002) 1973*

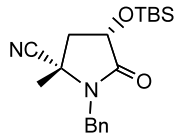


$C_{21}H_{33}NO_2Si$
(3*S*,5*R*)-3-[(*tert*-Butyldimethylsilyl)oxy]-1-benzyl-5-allyl-5-methyl-2-pyrrolidinone

$[\alpha]_D^{20} = -25.9$ (*c* 1.5, $CHCl_3$)
Source of chirality: (*S*)-malic acid
Absolute configuration: 3*S*,5*R*

Cristina M. Schuch and Ronaldo A. Pilli*

Tetrahedron: Asymmetry *13 (2002) 1973*



$C_{19}H_{28}N_2O_2Si$

(3*S*,5*S*)-3-[(*tert*-Butyldimethylsilyl)oxy]-1-benzyl-5-cyano-5-methyl-2-pyrrolidinone

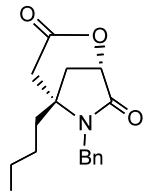
$[\alpha]_D^{20} = -51.1$ (*c* 1.8, CH_2Cl_2)

Source of chirality: (*S*)-malic acid

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

Cristina M. Schuch and Ronaldo A. Pilli*

Tetrahedron: Asymmetry *13 (2002) 1973*



$C_{17}H_{21}NO_3$

(1*S*,5*S*)-5-*n*-Butyl-6-benzyl-2-oxa-6-azabicyclo-[3.2.1]-octan-3,7-dione

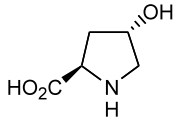
$[\alpha]_D^{20} = +33.3$ (*c* 0.2, $CHCl_3$)

Source of chirality: (*S*)-malic acid

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

Cristina M. Schuch and Ronaldo A. Pilli*

Tetrahedron: Asymmetry *13 (2002) 1973*



$C_5H_9NO_3$

trans-4-Hydroxy-D-proline

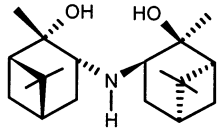
$[\alpha]_D^{20} = +42.5$ (*c* 1.00, 1N HCl)

Source of chirality: (*S*)-malic acid

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

Stanisław W. Markowicz,* Katarzyna Pokrzeptowicz, Janina Karolak-Wojciechowska, Robert Czylkowski, Jan Omelańczuk and Agata Sobczak

Tetrahedron: Asymmetry *13 (2002) 1981*



$C_{20}H_{35}NO_2$

Di(1*S*,2*S*,3*R*,5*S*)-2,6,6-trimethyl-2-hydroxybicyclo[3.1.1]heptan-3-amine

E.e. >99%

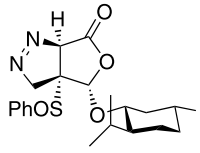
$[\alpha]_D^{20} = -35.5$ (*c* 1, $CHCl_3$)

Source of chirality: (+)-α-pinene

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

José L. García Ruano,* Fernando Bercial, Gemma González, Ana M. Martín Castro and M. Rosario Martín*

Tetrahedron: Asymmetry *13 (2002) 1993*

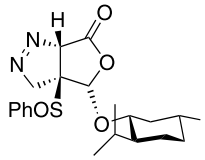


D.e. >97%
$[\alpha]_D^{20} = -149$ (*c* 1.0, $CHCl_3$)
Source of chirality: (–)-menthol
Absolute configuration: 3a*R*,4*S*,6a*S*,S_S

$C_{21}H_{28}N_2O_4S$
(3a*R*,4*S*,6a*S*)-4-(*l*)-Menthyloxy-3a-[(*S*)-(phenylsulfinyl)]-3,3a,4,6a-tetrahydro-6*H*-furo[3,4-*c*]pyrazol-6-one

José L. García Ruano,* Fernando Bercial, Gemma González, Ana M. Martín Castro and M. Rosario Martín*

Tetrahedron: Asymmetry *13 (2002) 1993*

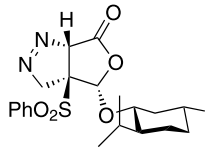


D.e. >97%
$[\alpha]_D^{20} = +232.4$ (*c* 0.5, $CHCl_3$)
Source of chirality: (–)-menthol
Absolute configuration: 3a*S*,4*S*,6a*R*,S_S

$C_{21}H_{28}N_2O_4S$
(3a*S*,4*S*,6a*R*)-4-(*l*)-Menthyloxy-3a-[(*S*)-(phenylsulfinyl)]-3,3a,4,6a-tetrahydro-6*H*-furo[3,4-*c*]pyrazol-6-one

José L. García Ruano,* Fernando Bercial, Gemma González, Ana M. Martín Castro and M. Rosario Martín*

Tetrahedron: Asymmetry *13 (2002) 1993*

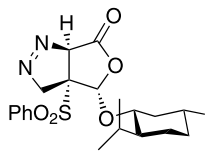


D.e. >97%
$[\alpha]_D^{20} = +212.5$ (*c* 1.0, $CHCl_3$)
Source of chirality: (–)-menthol
Absolute configuration: 3a*S*,4*S*,6a*R*

$C_{21}H_{28}N_2O_5S$
(3a*S*,4*S*,6a*R*)-4-(l)-Menthyloxy-3a-(phenylsulfonyl)-3,3a,4,6a-tetrahydro-6*H*-furo[3,4-*c*]pyrazol-6-one

José L. García Ruano,* Fernando Bercial, Gemma González, Ana M. Martín Castro and M. Rosario Martín*

Tetrahedron: Asymmetry *13 (2002) 1993*

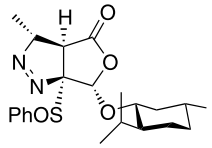


D.e. >97%
$[\alpha]_D^{20} = -132.0$ (*c* 1.0, $CHCl_3$)
Source of chirality: (–)-menthol
Absolute configuration: 3a*R*,4*S*,6a*S*

$C_{21}H_{28}N_2O_5S$
(3a*R*,4*S*,6a*S*)-4-(l)-Menthyloxy-3a-(phenylsulfonyl)-3,3a,4,6a-tetrahydro-6*H*-furo[3,4-*c*]pyrazol-6-one

José L. García Ruano,* Fernando Bercial, Gemma González, Ana M. Martín Castro and M. Rosario Martín*

Tetrahedron: Asymmetry *13 (2002) 1993*



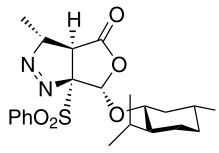
D.e. >97%
$[\alpha]_D^{20} = -115.2$ (*c* 0.25, $CHCl_3$)
Source of chirality: (–)-menthol
Absolute configuration: 3*R*,3a*S*,6*S*,6a*R*,(S)*S*

$C_{22}H_{30}N_2O_4S$

(3*R*,3a*S*,6*S*,6a*R*)-6-(*l*)-Menthyloxy-3-methyl-6a-[(*S*)-(phenylsulfinyl)]-3,3a,6,6a-tetrahydro-4*H*-furo[3,4-*c*]pyrazol-4-one

José L. García Ruano,* Fernando Bercial, Gemma González, Ana M. Martín Castro and M. Rosario Martín*

Tetrahedron: Asymmetry *13 (2002) 1993*



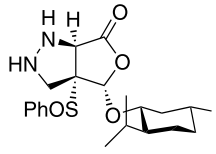
D.e. >97%
$[\alpha]_D^{20} = +130.7$ (*c* 0.5, $CHCl_3$)
Source of chirality: (–)-menthol
Absolute configuration: 3*R*,3a*S*,6*S*,6a*R*

$C_{22}H_{30}N_2O_5S$

(3*R*,3a*S*,6*S*,6a*R*)-6-(*l*)-Menthyloxy-3-methyl-6a-(phenylsulfonyl)-3,3a,6,6a-tetrahydro-4*H*-furo[3,4-*c*]pyrazol-4-one

José L. García Ruano,* Fernando Bercial, Gemma González, Ana M. Martín Castro and M. Rosario Martín*

Tetrahedron: Asymmetry *13 (2002) 1993*



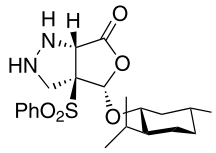
D.e. >97%
$[\alpha]_D^{20} = +47.6$ (*c* 0.25, $CHCl_3$)
Source of chirality: (–)-menthol
Absolute configuration: 3a*R*,4*S*,6a*S*,S_S

$C_{21}H_{30}N_2O_4S$

(3a*R*,4*S*,6a*S*)-4-(*l*)-Menthyloxy-3a-[(*S*)-(phenylsulfinyl)]-hexahydro-6*H*-furo[3,4-*c*]pyrazol-6-one

José L. García Ruano,* Fernando Bercial, Gemma González, Ana M. Martín Castro and M. Rosario Martín*

Tetrahedron: Asymmetry *13 (2002) 1993*



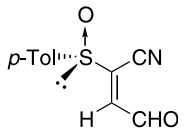
D.e. >97%
$[\alpha]_D^{20} = +60.9$ (*c* 0.25, $CHCl_3$)
Source of chirality: (–)-menthol
Absolute configuration: 3a*S*,4*S*,6a*R*

$C_{21}H_{30}N_2O_5S$

(3a*S*,4*S*,6a*R*)-4-(*l*)-Menthyloxy-3a-(phenylsulfonyl)-hexahydro-6*H*-furo[3,4-*c*]pyrazol-6-one

Tetrahedron: Asymmetry *13 (2002) 2003*

José L. García Ruano,* Lorena González Gutiérrez,
Ana M. Martín Castro and Francisco Yuste*



$C_{11}H_9NO_2S$

(2*E*,S_S)-2-[(4-Methylphenyl)sulfinyl]-4-oxobut-2-enenitrile

E.e. >97%

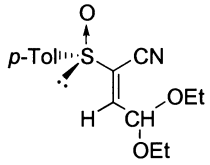
$[\alpha]_D = +510$ (*c* 0.12, $CHCl_3$)

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

Absolute configuration: 2*E*,S_S

Tetrahedron: Asymmetry *13 (2002) 2003*

José L. García Ruano,* Lorena González Gutiérrez,
Ana M. Martín Castro and Francisco Yuste*



$C_{15}H_{19}NO_3S$

(2*E*,S_S)-4,4-Diethoxy-2-[(4-methylphenyl)sulfinyl]but-2-enenitrile

E.e. >97%

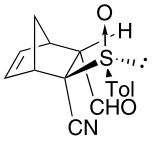
$[\alpha]_D = +189.9$ (*c* 1.0, $CHCl_3$)

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

Absolute configuration: 2*E*,S_S

Tetrahedron: Asymmetry *13 (2002) 2003*

José L. García Ruano,* Lorena González Gutiérrez,
Ana M. Martín Castro and Francisco Yuste*



$C_{16}H_{15}NO_2S$

(1*S*,2*S*,3*R*,4*R*,S_S)-3-Formyl-2-[(4-methylphenyl)sulfinyl]bicyclo[2.2.1]hept-5-ene-2-carbonitrile

E.e. >97%

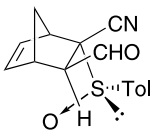
$[\alpha]_D = +136.4$ (*c* 0.26, $CHCl_3$)

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

Absolute configuration: 1*S*,2*S*,3*R*,4*R*,S_S

Tetrahedron: Asymmetry *13 (2002) 2003*

José L. García Ruano,* Lorena González Gutiérrez,
Ana M. Martín Castro and Francisco Yuste*



$C_{16}H_{15}NO_2S$

(1*R*,2*S*,3*R*,4*S*,S_S)-3-Formyl-2-[(4-methylphenyl)sulfinyl]bicyclo[2.2.1]hept-5-ene-2-carbonitrile

E.e. >97%

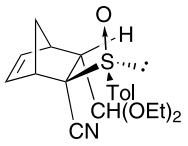
$[\alpha]_D = +273.4$ (*c* 0.53, $CHCl_3$)

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

Absolute configuration: 1*R*,2*S*,3*R*,4*S*,S_S

José L. García Ruano,* Lorena González Gutiérrez,
Ana M. Martín Castro and Francisco Yuste*

Tetrahedron: Asymmetry *13 (2002) 2003*

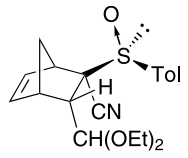


E.e. >97%
$[\alpha]_D = +35.1$ (*c* 1.12, $CHCl_3$)
Source of chirality: (1*R*,2*S*,5*R*)-(−)-menthol
Absolute configuration: 1*S*,2*S*,3*R*,4*R*,S_S

$C_{20}H_{25}NO_3S$
(1*S*,2*S*,3*R*,4*R*,S_S)-3-(Diethoxymethyl)-2-[(4-methylphenyl)sulfinyl]bicyclo[2.2.1]hept-5-ene-2-carbonitrile

José L. García Ruano,* Lorena González Gutiérrez,
Ana M. Martín Castro and Francisco Yuste*

Tetrahedron: Asymmetry *13 (2002) 2003*

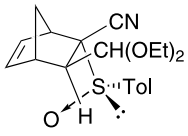


E.e. >97%
$[\alpha]_D = +96.2$ (*c* 0.5, $CHCl_3$)
Source of chirality: (1*R*,2*S*,5*R*)-(−)-menthol
Absolute configuration: 1*R*,2*R*,3*S*,4*S*,S_S

$C_{20}H_{25}NO_3S$
(1*R*,2*R*,3*S*,4*S*,S_S)-3-(Diethoxymethyl)-2-[(4-methylphenyl)sulfinyl]bicyclo[2.2.1]hept-5-ene-2-carbonitrile

José L. García Ruano,* Lorena González Gutiérrez,
Ana M. Martín Castro and Francisco Yuste*

Tetrahedron: Asymmetry *13 (2002) 2003*

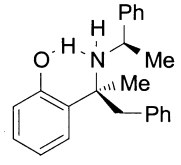


E.e. >97%
$[\alpha]_D = +139.8$ (*c* 1.07, $CHCl_3$)
Source of chirality: (1*R*,2*S*,5*R*)-(−)-menthol
Absolute configuration: 1*R*,2*S*,3*R*,4*S*,S_S

$C_{20}H_{25}NO_3S$
(1*R*,2*S*,3*R*,4*S*,S_S)-3-(Diethoxymethyl)-2-[(4-methylphenyl)sulfinyl]bicyclo[2.2.1]hept-5-ene-2-carbonitrile

Cristina Cimarelli, Gianni Palmieri* and Emanuela Volpini

Tetrahedron: Asymmetry *13 (2002) 2011*

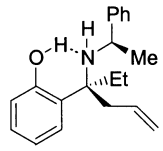


E.e. = 98%
$[\alpha]_D^{20} = +95.0$ (*c* 1.6, $CHCl_3$)
Source of chirality: (*R*)-1-phenylethylamine
Absolute configuration: 1*S*,1′*R*

$C_{23}H_{25}NO$
2-((1*S*)-1-Methyl-2-phenyl-1-{[(1′*R*)-1′-phenylethyl]amino}ethyl)phenol

Cristina Cimarelli, Gianni Palmieri* and Emanuela Volpini

Tetrahedron: Asymmetry *13 (2002) 2011*

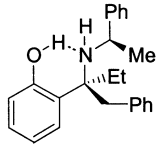


E.e. = 98%
$[\alpha]_D^{20} = -28.0$ (*c* 3.0, $CHCl_3$)
Source of chirality: (*R*)-1-phenylethylamine
Absolute configuration: 1*S*,1′*R*

$C_{20}H_{25}NO$
2-((1*S*)-1-Ethyl-1-{[(1′*R*)-1′-phenylethyl]amino}but-3-enyl)phenol

Cristina Cimarelli, Gianni Palmieri* and Emanuela Volpini

Tetrahedron: Asymmetry *13 (2002) 2011*

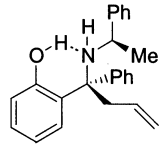


E.e. = 98%
$[\alpha]_D^{20} = +83.5$ (*c* 1.2, $CHCl_3$)
Source of chirality: (*R*)-1-phenylethylamine
Absolute configuration: 1*S*,1′*R*

$C_{24}H_{27}NO$
2-((1*S*)-1-Ethyl-2-phenyl-1-{[(1′*R*)-1′-phenylethyl]amino}ethyl)phenol

Cristina Cimarelli, Gianni Palmieri* and Emanuela Volpini

Tetrahedron: Asymmetry *13 (2002) 2011*

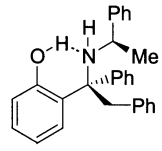


E.e. = 98%
$[\alpha]_D^{20} = +52.9$ (*c* 1.6, $CHCl_3$)
Source of chirality: (*R*)-1-phenylethylamine
Absolute configuration: *R*,*R*

$C_{24}H_{25}NO$
2-((1*R*)-1-Phenyl-1-{[(1′*R*)-1′-phenylethyl]amino}but-3-enyl)phenol

Cristina Cimarelli, Gianni Palmieri* and Emanuela Volpini

Tetrahedron: Asymmetry *13 (2002) 2011*

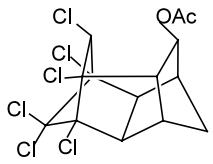


E.e. = 98%
$[\alpha]_D^{20} = +61.8$ (*c* 2.0, $CHCl_3$)
Source of chirality: (*R*)-1-phenylethylamine
Absolute configuration: *R*,*R*

$C_{28}H_{27}NO$
2-((1*R*)-1,2-Diphenyl-1-{[(1′*R*)-1′-phenylethyl]amino}ethyl)phenol

João Alifantes, Aline G. Nichele and Valentim E. U. Costa*

Tetrahedron: Asymmetry *13 (2002) 2019*



Ee >95%

$[\alpha]_D^{20}=+1$ (*c* 1.0, CH_2Cl_2)

Source of chirality: enzymatic resolution

$C_{14}H_{12}Cl_6O_2$

endo-(−)-1,8,9,10,11,11-Hexachloropentacyclo[6.2.1.1^{3,6}.0^{2,7}.0^{5,9}]dodecan-4-yl-acetate

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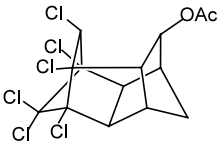
João Alifantes, Aline G. Nichele and Valentim E. U. Costa*

Tetrahedron: Asymmetry *13 (2002) 2019*



Ee >95%

$[\alpha]_D^{20}=-6$ (*c* 1.0, CH_2Cl_2)

Source of chirality: asymmetric synthesis

$C_{14}H_{12}Cl_6O_2$

exo-(−)-1,8,9,10,11,11-Hexachloropentacyclo[6.2.1.1^{3,6}.0^{2,7}.0^{5,9}]dodecan-4-yl-acetate

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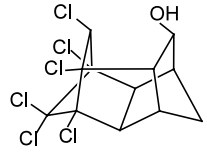
João Alifantes, Aline G. Nichele and Valentim E. U. Costa*

Tetrahedron: Asymmetry *13 (2002) 2019*



Ee >95%

$[\alpha]_D^{20}=+1$ (*c* 1.0, CH_2Cl_2)

Source of chirality: asymmetric synthesis

$C_{12}H_{10}Cl_6O$

endo-(+)-1,8,9,10,11,11-Hexachloropentacyclo[6.2.1.1^{3,6}.0^{2,7}.0^{5,9}]dodecan-4-ol

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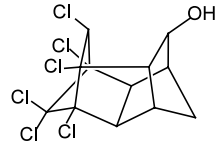
João Alifantes, Aline G. Nichele and Valentim E. U. Costa*

Tetrahedron: Asymmetry *13 (2002) 2019*



Ee >95%

$[\alpha]_D^{20}=+1$ (*c* 1.0, CH_2Cl_2)

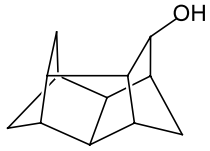
Source of chirality: asymmetric synthesis

$C_{12}H_{10}Cl_6O$

exo-(+)-1,8,9,10,11,11-Hexachloropentacyclo[6.2.1.1^{3,6}.0^{2,7}.0^{5,9}]dodecan-4-ol

João Alifantes, Aline G. Nichele and Valentim E. U. Costa*

Tetrahedron: Asymmetry *13 (2002) 2019*



$C_{12}H_{16}O$

exo-(+)-Pentacyclo[6.2.1.1^{3,6}.0^{2,7}.0^{5,9}]dodecan-4-ol

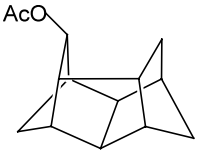
Ee >98%

$[\alpha]_D^{20}$ = +4 (*c* 1.0, CH_2Cl_2)

Source of chirality: enzymatic resolution

João Alifantes, Aline G. Nichele and Valentim E. U. Costa*

Tetrahedron: Asymmetry *13 (2002) 2019*



$C_{12}H_{18}O_2$

exo-(−)-Pentacyclo[6.2.1.1^{3,6}.0^{2,7}.0^{5,9}]dodecan-4-yl-acetate

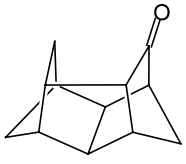
Ee >99%

$[\alpha]_D^{20}$ = −1 (*c* 1.0, CH_2Cl_2)

Source of chirality: enzymatic resolution

João Alifantes, Aline G. Nichele and Valentim E. U. Costa*

Tetrahedron: Asymmetry *13 (2002) 2019*



$C_{12}H_{14}O$

(−)-Pentacyclo[6.2.1.1^{3,6}.0^{2,7}.0^{5,9}]dodecan-4-one

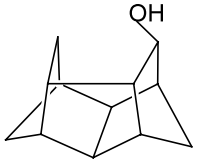
Ee >98%

$[\alpha]_D^{20}$ = −87 (*c* 1.0, CH_2Cl_2)

Source of chirality: asymmetric synthesis

João Alifantes, Aline G. Nichele and Valentim E. U. Costa*

Tetrahedron: Asymmetry *13 (2002) 2019*



$C_{12}H_{16}O$

endo-(+)-Pentacyclo[6.2.1.1^{3,6}.0^{2,7}.0^{5,9}]dodecan-4-ol

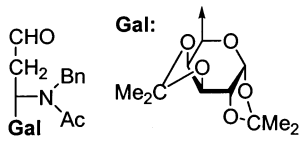
Ee >98%

$[\alpha]_D^{20}$ = +3 (*c* 1.0, CH_2Cl_2)

Source of chirality: asymmetric synthesis

Pastora Borrachero, Francisca Cabrera-Escribano, Mª Jesús Diánez, Mª Dolores Estrada, Manuel Gómez-Guillén,* Amparo López Castro, Simeón Pérez-Garrido and Mª Isabel Torres

Tetrahedron: Asymmetry *13 (2002) 2025*



$C_{23}H_{31}NO_7$

$[\alpha]_D^{26} = -38$ (*c* 1.3, CH_2Cl_2)

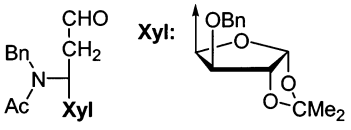
Source of chirality: 1,2:3,4-di-*O*-isopropylidene-α-D-galactopyranose and stereoselective cycloaddition reaction

Absolute configuration: 1*R*,2*R*,3*S*,4*S*,5*R*,6*S* (assigned from the configuration of the precursor isoxazolidine derivative)

6-(*N*-Benzyl)acetamido-6,7-dideoxy-1,2:3,4-di-*O*-isopropylidene-L-*glycero*-α-D-*galacto*-octodialdo-1,5-pyranose

Pastora Borrachero, Francisca Cabrera-Escribano, Mª Jesús Diánez, Mª Dolores Estrada, Manuel Gómez-Guillén,* Amparo López Castro, Simeón Pérez-Garrido and Mª Isabel Torres

Tetrahedron: Asymmetry *13 (2002) 2025*



$C_{26}H_{31}NO_6$

$[\alpha]_D^{22} = -29$ (*c* 0.53, CH_2Cl_2)

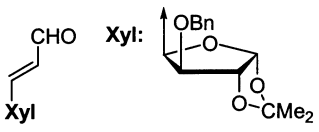
Source of chirality: 3-*O*-benzyl-1,2-*O*-isopropylidene-α-D-xylofuranose and stereoselective cycloaddition reaction

Absolute configuration: 1*R*,2*R*,3*S*,4*R*,5*R* (assigned from the configuration of the precursor isoxazolidine derivative)

5-(*N*-Benzyl)acetamido-5,6-dideoxy-3-*O*-benzyl-1,2-*O*-isopropylidene-D-*glycero*-α-D-*xylo*-heptodialdo-1,4-furanose

Pastora Borrachero, Francisca Cabrera-Escribano, Mª Jesús Diánez, Mª Dolores Estrada, Manuel Gómez-Guillén,* Amparo López Castro, Simeón Pérez-Garrido and Mª Isabel Torres

Tetrahedron: Asymmetry *13 (2002) 2025*



$C_{17}H_{20}O_5$

$[\alpha]_D^{23} = -34$ (*c* 0.89, CH_2Cl_2)

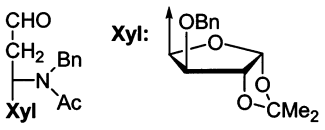
Source of chirality: 3-*O*-benzyl-1,2-*O*-isopropylidene-α-D-xylofuranose and stereoselective cycloaddition reaction

Absolute configuration: 1*R*,2*R*,3*S*,4*R* (assigned from the configuration of the precursor)

(*E*)-5,6-Didehydro-5,6-dideoxy-3-*O*-benzyl-1,2-*O*-isopropylidene-α-D-*xylo*-heptodialdo-1,4-furanose

Pastora Borrachero, Francisca Cabrera-Escribano, Mª Jesús Diánez, Mª Dolores Estrada, Manuel Gómez-Guillén,* Amparo López Castro, Simeón Pérez-Garrido and Mª Isabel Torres

Tetrahedron: Asymmetry *13 (2002) 2025*



$C_{26}H_{31}NO_6$

$[\alpha]_D^{20} = -35$ (*c* 0.85, CH_2Cl_2)

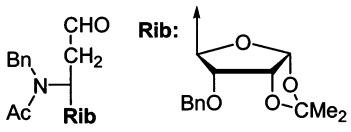
Source of chirality: 3-*O*-benzyl-1,2-*O*-isopropylidene-α-D-xylofuranose and stereoselective cycloaddition reaction

Absolute configuration: 1*R*,2*R*,3*S*,4*R*,5*S* (assigned from the configuration of the precursor isoxazolidine derivative)

5-(*N*-Benzyl)acetamido-5,6-dideoxy-3-*O*-benzyl-1,2-*O*-isopropylidene-L-*glycero*-α-D-*xylo*-heptodialdo-1,4-furanose

Pastora Borrachero, Francisca Cabrera-Escribano, Mª Jesús Diánez, Mª Dolores Estrada, Manuel Gómez-Guillén,* Amparo López Castro, Simeón Pérez-Garrido and Mª Isabel Torres

Tetrahedron: Asymmetry *13 (2002) 2025*



$C_{26}H_{31}NO_6$

HRCIMS: m/z 454.2238 (calcd for [M+H]: 454.2230)

Source of chirality: 3-*O*-benzyl-1,2-*O*-isopropylidene-α-D-ribofuranose and stereoselective cycloaddition reaction

Absolute configuration: 1*R*,2*R*,3*R*,4*R*,5*R* (assigned from the configuration of the precursor isoxazolidine derivative)

5-(*N*-Benzyl)acetamido-5,6-dideoxy-3-*O*-benzyl-1,2-*O*-isopropylidene-D-*glycero*-α-D-*ribo*-heptodialdo-1,4-furanose

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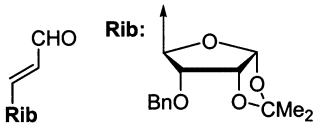
Pastora Borrachero, Francisca Cabrera-Escribano, Mª Jesús Diánez, Mª Dolores Estrada, Manuel Gómez-Guillén,* Amparo López Castro, Simeón Pérez-Garrido and Mª Isabel Torres

Tetrahedron: Asymmetry *13 (2002) 2025*



$C_{17}H_{20}NO_5$

$[\alpha]_D^{20} = +54.5$ (c 0.4, CH_2Cl_2)

Source of chirality: 3-*O*-benzyl-1,2-*O*-isopropylidene-α-D-ribofuranose and stereoselective cycloaddition reaction

Absolute configuration: 1*R*,2*R*,3*R*,4*R* (assigned from the configuration of precursors)

(*E*)-5,6-Didehydro-5,6-dideoxy-3-*O*-benzyl-1,2-*O*-isopropylidene-α-D-*ribo*-heptodialdo-1,4-furanose

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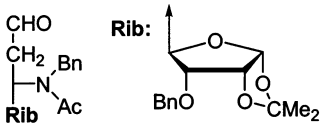
Pastora Borrachero, Francisca Cabrera-Escribano, Mª Jesús Diánez, Mª Dolores Estrada, Manuel Gómez-Guillén,* Amparo López Castro, Simeón Pérez-Garrido and Mª Isabel Torres

Tetrahedron: Asymmetry *13 (2002) 2025*



$C_{26}H_{31}NO_6$

$[\alpha]_D^{22} = +33$ (c 0.4, CH_2Cl_2)

Source of chirality: 3-*O*-benzyl-1,2-*O*-isopropylidene-α-D-ribofuranose and stereoselective cycloaddition reaction

Absolute configuration: 1*R*,2*R*,3*R*,4*R*,5*S* (assigned from the configuration of precursors)

5-(*N*-Benzyl)acetamido-5,6-dideoxy-3-*O*-benzyl-1,2-*O*-isopropylidene-L-*glycero*-α-D-*ribo*-heptodialdo-1,4-furanose

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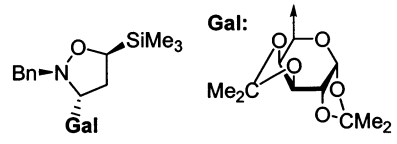
Pastora Borrachero, Francisca Cabrera-Escribano, Mª Jesús Diánez, Mª Dolores Estrada, Manuel Gómez-Guillén,* Amparo López Castro, Simeón Pérez-Garrido and Mª Isabel Torres

Tetrahedron: Asymmetry *13 (2002) 2025*



$C_{24}H_{37}NO_6Si$

Mp = 54–56°C

$[\alpha]_D^{25} = +3.7$ (c 1.8, CH_2Cl_2)

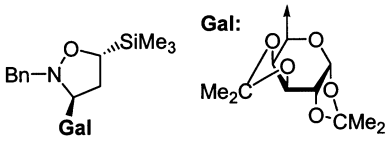
Source of chirality: 1,2:3,4-di-*O*-isopropylidene-α-D-galactopyranose and stereoselective cycloaddition reaction

Absolute configuration: 2*R*,3*R*,5*S*,1′*R*,2′*R*,3′*S*,4′*S*,5′*R* (assigned by X-ray crystallographic analysis)

(2*R*,3*R*,5*S*)-2-Benzyl-3-(1,2:3,4-di-*O*-isopropylidene-α-D-*galacto*-pentopyranos-5-yl)-5-(trimethylsilyl)isoxazolidine

Pastora Borrachero, Francisca Cabrera-Escribano, Mª Jesús Diánez, Mª Dolores Estrada, Manuel Gómez-Guillén,* Amparo López Castro, Simeón Pérez-Garrido and Mª Isabel Torres

Tetrahedron: Asymmetry *13 (2002) 2025*



$C_{24}H_{37}NO_6Si$

$[\alpha]_D^{25} = -85$ (*c* 1.3, CH_2Cl_2)

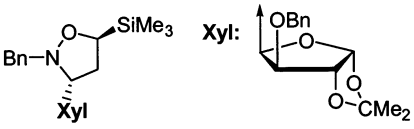
Source of chirality: 1,2:3,4-di-*O*-isopropylidene-α-D-galactopyranose and stereoselective cycloaddition reaction

Absolute configuration: 3*S*,5*R*,1′*R*,2′*R*,3′*S*,4′*S*,5′*R* (assigned by NMR and chemical transformation)

(3*S*,5*R*)-2-Benzyl-3-(1,2:3,4-di-*O*-isopropylidene-α-D-*galacto*-pentopyranos-5-yl)-5-(trimethylsilyl)isoxazolidine

Pastora Borrachero, Francisca Cabrera-Escribano, Mª Jesús Diánez, Mª Dolores Estrada, Manuel Gómez-Guillén,* Amparo López Castro, Simeón Pérez-Garrido and Mª Isabel Torres

Tetrahedron: Asymmetry *13 (2002) 2025*



$C_{27}H_{37}NO_5Si$

$[\alpha]_D^{23} = +1.0$ (*c* 0.3, CH_2Cl_2)

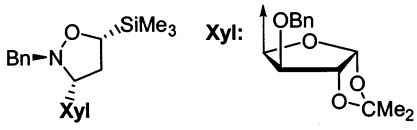
Source of chirality: 3-*O*-benzyl-1,2-*O*-isopropylidene-α-D-xylofuranose and stereoselective cycloaddition reaction

Absolute configuration: 3*R*,5*S*,1′*R*,2′*R*,3′*S*,4′*R* (assigned by NMR and chemical transformation)

(3*R*,5*S*)-2-Benzyl-3-(3-*O*-benzyl-1,2-*O*-isopropylidene-α-D-*xylo*-tetrofuranos-4-yl)-5-(trimethylsilyl)isoxazolidine

Pastora Borrachero, Francisca Cabrera-Escribano, Mª Jesús Diánez, Mª Dolores Estrada, Manuel Gómez-Guillén,* Amparo López Castro, Simeón Pérez-Garrido and Mª Isabel Torres

Tetrahedron: Asymmetry *13 (2002) 2025*



$C_{27}H_{37}NO_5Si$

$[\alpha]_D^{22} = +8.4$ (*c* 0.7, CH_2Cl_2)

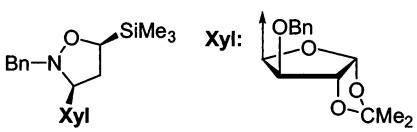
Source of chirality: 3-*O*-benzyl-1,2-*O*-isopropylidene-α-D-xylofuranose and stereoselective cycloaddition reaction

Absolute configuration: 3*R*,5*S*,1′*R*,2′*R*,3′*S*,4′*R* (assigned by NMR and chemical transformation)

(3*R*,5*R*)-2-Benzyl-3-(3-*O*-benzyl-1,2-*O*-isopropylidene-α-D-*xylo*-tetrofuranos-4-yl)-5-(trimethylsilyl)isoxazolidine

Pastora Borrachero, Francisca Cabrera-Escribano, Mª Jesús Diánez, Mª Dolores Estrada, Manuel Gómez-Guillén,* Amparo López Castro, Simeón Pérez-Garrido and Mª Isabel Torres

Tetrahedron: Asymmetry *13 (2002) 2025*



$C_{27}H_{37}NO_5Si$

$[\alpha]_D^{20} = -74.6$ (*c* 1.4, CH_2Cl_2)

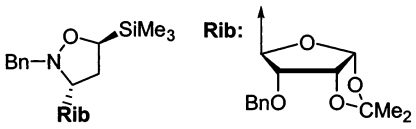
Source of chirality: 3-*O*-benzyl-1,2-*O*-isopropylidene-α-D-xylofuranose and stereoselective cycloaddition reaction

Absolute configuration: 3*S*,5*S*,1′*R*,2′*R*,3′*S*,4′*R* (assigned by NMR and chemical transformation)

(3*S*,5*S*)-2-Benzyl-3-(3-*O*-benzyl-1,2-*O*-isopropylidene-α-D-*xylo*-tetrofuranos-4-yl)-5-(trimethylsilyl)isoxazolidine

Tetrahedron: Asymmetry *13 (2002) 2025*

Pastora Borrachero, Francisca Cabrera-Escribano, Mª Jesús Diánez, Mª Dolores Estrada, Manuel Gómez-Guillén,* Amparo López Castro, Simeón Pérez-Garrido and Mª Isabel Torres



$C_{27}H_{37}NO_5Si$

(3*R*,5*S*)-2-Benzyl-3-(3-*O*-benzyl-1,2-*O*-isopropylidene-α-D-*ribo*-tetrofuranos-4-yl)-5-(trimethylsilyl)isoxazolidine

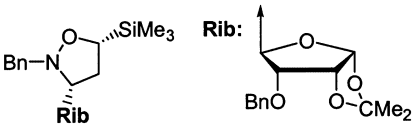
$[\alpha]_D^{23} = +101$ (*c* 1.8, CH_2Cl_2)

Source of chirality: 3-*O*-benzyl-1,2-*O*-isopropylidene-α-D-ribofuranose and stereoselective cycloaddition reaction

Absolute configuration: 3*R*,5*S*,1′*R*,2′*R*,3′*R*,4′*R* (assigned by NMR and chemical transformation)

Tetrahedron: Asymmetry *13 (2002) 2025*

Pastora Borrachero, Francisca Cabrera-Escribano, Mª Jesús Diánez, Mª Dolores Estrada, Manuel Gómez-Guillén,* Amparo López Castro, Simeón Pérez-Garrido and Mª Isabel Torres



$C_{27}H_{37}NO_5Si$

(3*R*,5*R*)-2-Benzyl-3-(3-*O*-benzyl-1,2-*O*-isopropylidene-α-D-*ribo*-tetrofuranos-4-yl)-5-(trimethylsilyl)isoxazolidine

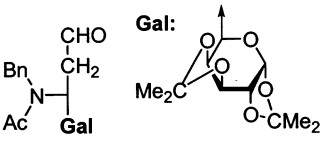
$[\alpha]_D^{23} = +153$ (*c* 1.52, CH_2Cl_2)

Source of chirality: 3-*O*-benzyl-1,2-*O*-isopropylidene-α-D-ribofuranose and stereoselective cycloaddition reaction

Absolute configuration: 3*R*,5*R*,1′*R*,2′*R*,3′*R*,4′*R* (assigned by NMR and chemical transformation)

Tetrahedron: Asymmetry *13 (2002) 2025*

Pastora Borrachero, Francisca Cabrera-Escribano, Mª Jesús Diánez, Mª Dolores Estrada, Manuel Gómez-Guillén,* Amparo López Castro, Simeón Pérez-Garrido and Mª Isabel Torres



$C_{23}H_{31}NO_7$

6-(*N*-Benzyl)acetamido-6,7-dideoxy-1,2:3,4-di-*O*-isopropylidene-D-*glycero*-α-D-*galacto*-octodialdo-1,5-pyranose

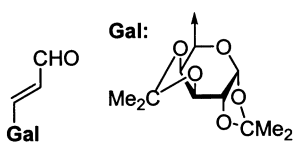
$[\alpha]_D^{26} = -10$ (*c* 0.68, CH_2Cl_2)

Source of chirality: 1,2:3,4-di-*O*-isopropylidene-α-D-galactopyranose and stereoselective cycloaddition reaction

Absolute configuration: 1*R*,2*R*,3*S*,4*S*,5*R*,6*R* (assigned from the configuration of the precursor isoxazolidine derivative)

Tetrahedron: Asymmetry *13 (2002) 2025*

Pastora Borrachero, Francisca Cabrera-Escribano, Mª Jesús Diánez, Mª Dolores Estrada, Manuel Gómez-Guillén,* Amparo López Castro, Simeón Pérez-Garrido and Mª Isabel Torres



$C_{14}H_{20}O_6$

(*E*)-6,7-Didehydro-6,7-dideoxy-1,2:3,4-di-*O*-isopropylidene-α-D-*galacto*-octodialdo-1,5-pyranose

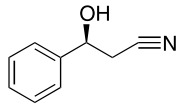
$[\alpha]_D^{25} = -48$ (*c* 2.0, CH_2Cl_2)

Source of chirality: 1,2:3,4-di-*O*-isopropylidene-α-D-galactopyranose and stereoselective cycloaddition reaction

Absolute configuration: 1*R*,2*R*,3*S*,4*S*,5*R* (assigned from the configuration of the precursor)

Ahmed Kamal,* G. B. Ramesh Khanna and R. Ramu

Tetrahedron: Asymmetry *13 (2002) 2039*



C_9H_9NO

(*S*)-3-Hydroxy-3-phenylpropanenitrile

Ee >99%

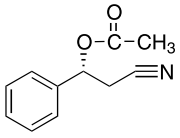
$[\alpha]_D^{30} = -60.5$ (*c* 1.0, $CHCl_3$)

Source of chirality: lipase-catalyzed resolution

Absolute configuration: *S*

Ahmed Kamal,* G. B. Ramesh Khanna and R. Ramu

Tetrahedron: Asymmetry *13 (2002) 2039*



$C_{11}H_{11}NO_2$

(*R*)-3-Acetyloxy-3-phenylpropanenitrile

Ee >99%

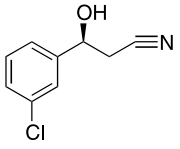
$[\alpha]_D^{30} = +71.9$ (*c* 1.0, $CHCl_3$)

Source of chirality: lipase-catalyzed resolution

Absolute configuration: *R*

Ahmed Kamal,* G. B. Ramesh Khanna and R. Ramu

Tetrahedron: Asymmetry *13 (2002) 2039*



C_9H_8ClNO

(*S*)-3-(3-Chlorophenyl)-3-hydroxypropanenitrile

Ee >99%

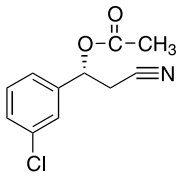
$[\alpha]_D^{30} = -50.5$ (*c* 2.0, $CHCl_3$)

Source of chirality: lipase-catalyzed resolution

Absolute configuration: *S*

Ahmed Kamal,* G. B. Ramesh Khanna and R. Ramu

Tetrahedron: Asymmetry *13 (2002) 2039*



$C_{11}H_{10}ClNO_2$

(*R*)-3-Acetyloxy-3-(3-chlorophenyl)propanenitrile

Ee >99%

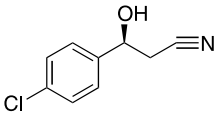
$[\alpha]_D^{30} = +68.0$ (*c* 1.0, $CHCl_3$)

Source of chirality: lipase-catalyzed resolution

Absolute configuration: *R*

Ahmed Kamal,* G. B. Ramesh Khanna and R. Ramu

Tetrahedron: Asymmetry *13 (2002) 2039*



C_9H_8ClNO

(*S*)-3-(4-Chlorophenyl)-3-hydroxypropanenitrile

Ee >99%

$[\alpha]_D^{30} = -54.5$ (*c* 2.0, $CHCl_3$)

Source of chirality: lipase-catalyzed resolution

Absolute configuration: *S*

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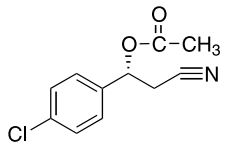
Tetrahedron: Asymmetry *13 (2002) 2039*



$C_{11}H_{10}ClNO_2$

(*R*)-3-Acetyloxy-3-(4-chlorophenyl)propanenitrile

Ee >99%

$[\alpha]_D^{30} = +80.5$ (*c* 1.0, $CHCl_3$)

Source of chirality: lipase-catalyzed resolution

Absolute configuration: *R*

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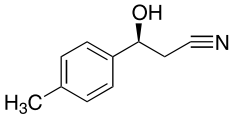
Tetrahedron: Asymmetry *13 (2002) 2039*



$C_{10}H_{11}NO$

(*S*)-3-Hydroxy-3-(4-methylphenyl)propanenitrile

Ee >99%

$[\alpha]_D^{30} = -52.6$ (*c* 2.0, $CHCl_3$)

Source of chirality: lipase-catalyzed resolution

Absolute configuration: *S*

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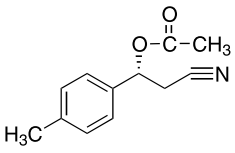
Tetrahedron: Asymmetry *13 (2002) 2039*



$C_{12}H_{13}NO_2$

(*R*)-3-Acetyloxy-3-(4-methylphenyl)propanenitrile

Ee >99%

$[\alpha]_D^{30} = +106.5$ (*c* 1.0, $CHCl_3$)

Source of chirality: lipase-catalyzed resolution

Absolute configuration: *R*

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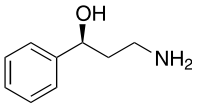
Tetrahedron: Asymmetry *13 (2002) 2039*



$C_9H_{13}NO$

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

$[\alpha]_D^{30} = -42.8$ (*c* 1.0, MeOH)

Source of chirality: chiral hydroxy nitrile

Absolute configuration: *S*

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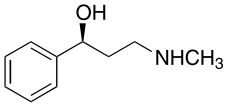
Tetrahedron: Asymmetry *13 (2002) 2039*



$C_{10}H_{15}NO$

(*S*)-*N*-3-Methyl-3-amino-1-phenyl-1-propanol

$[\alpha]_D^{30} = -36.2$ (*c* 0.85, $CHCl_3$)

Source of chirality: chiral hydroxy nitrile

Absolute configuration: *S*

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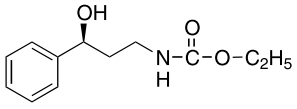
Tetrahedron: Asymmetry *13 (2002) 2039*



$C_{12}H_{17}NO_3$

(*S*)-*N*-(Ethoxycarbonyl)-3-amino-1-phenyl-1-propanol

$[\alpha]_D^{30} = -25.0$ (*c* 1.0, $CHCl_3$)

Source of chirality: chiral hydroxy nitrile

Absolute configuration: *S*

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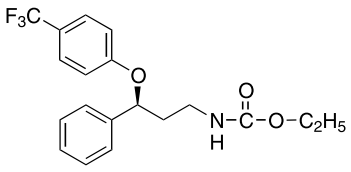
Tetrahedron: Asymmetry *13 (2002) 2039*



$C_{19}H_{20}F_3NO_3$

(*S*)-*N*-(Ethoxycarbonyl)-3-(4-(trifluoromethyl)-phenoxy)-3-phenyl-1-propanamine

$[\alpha]_D^{30} = -7.1$ (*c* 1.0, $CHCl_3$)

Source of chirality: chiral hydroxy nitrile

Absolute configuration: *S*

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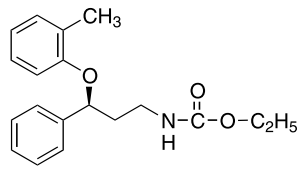
Tetrahedron: Asymmetry *13 (2002) 2039*



$C_{19}H_{23}NO_3$

(*S*)-*N*-(Ethoxycarbonyl)-3-(2-(methyl)-phenoxy)-3-phenyl-1-propanamine

$[\alpha]_D^{30} = +10.2$ (*c* 1.0, $CHCl_3$)

Source of chirality: chiral hydroxy nitrile

Absolute configuration: *S*

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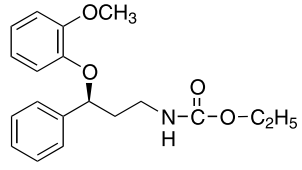
Tetrahedron: Asymmetry *13 (2002) 2039*



$C_{19}H_{23}NO_4$

(*S*)-*N*-(Ethoxycarbonyl)-3-(2-(methoxy)-phenoxy)-3-phenyl-1-propanamine

$[\alpha]_D^{30} = -8.7$ (*c* 1.0, $CHCl_3$)

Source of chirality: chiral hydroxy nitrile

Absolute configuration: *S*

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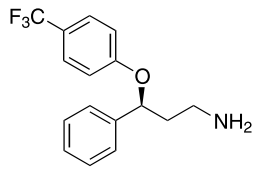
Tetrahedron: Asymmetry *13 (2002) 2039*



$C_{16}H_{16}F_3NO$

(*S*)-3-Phenyl-3-(4-trifluoromethylphenoxy)-1-propanamine

$[\alpha]_D^{30} = -3.5$ (*c* 1.0, $CHCl_3$)

Source of chirality: chiral hydroxy nitrile

Absolute configuration: *S*

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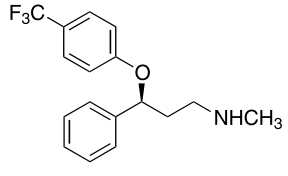
Tetrahedron: Asymmetry *13 (2002) 2039*



$C_{17}H_{18}F_3NO$

(*S*)-*N*-Methyl-3-phenyl-3-(4-trifluoromethylphenoxy)-1-propanamine

$[\alpha]_D^{30} = -4.1$ (*c* 1.0, $CHCl_3$)

Source of chirality: chiral hydroxy nitrile

Absolute configuration: *S*

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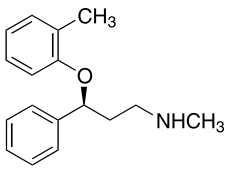
Tetrahedron: Asymmetry *13 (2002) 2039*



$C_{17}H_{21}NO$

(*S*)-*N*-Methyl-3-(2-methylphenoxy)-3-phenyl-1-propanamine

$[\alpha]_D^{30} = +42.2$ (*c* 0.56, MeOH)

Source of chirality: chiral hydroxy nitrile

Absolute configuration: *S*

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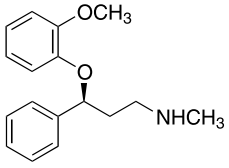
Tetrahedron: Asymmetry *13 (2002) 2039*



$C_{17}H_{21}NO_2$

(*S*)-*N*-Methyl-3-(2-methoxyphenoxy)-3-phenyl-1-propanamine

$[\alpha]_D^{30} = -34.6$ (*c* 1, $CHCl_3$)

Source of chirality: chiral hydroxy nitrile

Absolute configuration: *S*

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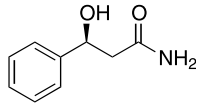
Tetrahedron: Asymmetry *13 (2002) 2039*



$C_9H_{11}NO_2$

(*S*)-3-Hydroxy-3-phenylpropanamide

$[\alpha]_D^{30} = -32.1$ (*c* 1.0, EtOH)

Source of chirality: chiral hydroxy nitrile

Absolute configuration: *S*

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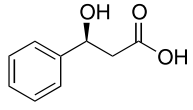
Tetrahedron: Asymmetry *13 (2002) 2039*



$C_9H_{10}O_3$

(*S*)-3-Hydroxy-3-phenylpropanoic acid

$[\alpha]_D^{30} = -18.1$ (*c* 1, EtOH)

Source of chirality: chiral hydroxy nitrile

Absolute configuration: *S*

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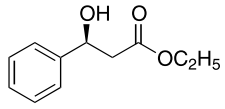
Tetrahedron: Asymmetry *13 (2002) 2039*



$C_{11}H_{14}O_3$

(*S*)-Ethyl-3-hydroxy-3-phenyl propanoate

$[\alpha]_D^{30} = -49.5$ (*c* 1, $CHCl_3$)

Source of chirality: chiral hydroxy nitrile

Absolute configuration: *S*

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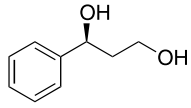
Tetrahedron: Asymmetry *13 (2002) 2039*



$C_9H_{12}O_2$

(*S*)-1-Phenyl-1,3-propanediol

$[\alpha]_D^{30} = -67.1$ (*c* 1, $CHCl_3$)

Source of chirality: chiral hydroxy nitrile

Absolute configuration: *S*

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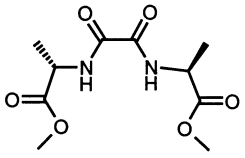
Tetrahedron: Asymmetry *13 (2002) 2053*



$C_{10}H_{16}N_2O_6$

Dimethyl (2*S*,7*S*)-3,6-diaza-4,5-dioxo-2,7-dimethyloctano-1,8-dicarboxylate

$[\alpha]_D^{20} = -82$ (*c* 2.9, DMSO)

Source of chirality: L-alanine

Absolute configuration: 2*S*,7*S*

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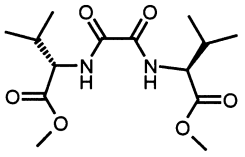
Tetrahedron: Asymmetry *13 (2002) 2053*



$C_{14}H_{24}N_2O_6$

Dimethyl (2*S*,7*S*)-3,6-diaza-4,5-dioxo-2,7-diisopropyloctano-1,8-dicarboxylate

$[\alpha]_D^{20} = -53$ (*c* 2, DMSO)

Source of chirality: L-valine

Absolute configuration: 2*S*,7*S*

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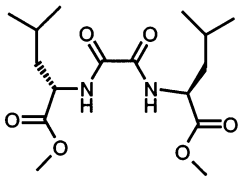
Tetrahedron: Asymmetry *13 (2002) 2053*



$C_{16}H_{28}N_2O_6$

Dimethyl (2*S*,7*S*)-3,6-diaza-4,5-dioxo-2,7-diisobutyloctano-1,8-dicarboxylate

$[\alpha]_D^{20} = -61$ (*c* 3.7, DMSO)

Source of chirality: L-leucine

Absolute configuration: 2*S*,7*S*

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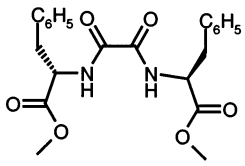
Tetrahedron: Asymmetry *13 (2002) 2053*



$C_{22}H_{24}N_2O_6$

Dimethyl (2*S*,7*S*)-3,6-diaza-4,5-dioxo-2,7-dibenzyloctano-1,8-dicarboxylate

$[\alpha]_D^{20} = -43$ (*c* 3, DMSO)

Source of chirality: L-phenylalanine

Absolute configuration: 2*S*,7*S*

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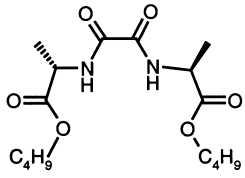
Tetrahedron: Asymmetry *13 (2002) 2053*



$C_{16}H_{28}N_2O_6$

Dibutyl (2*S*,7*S*)-3,6-diaza-4,5-dioxo-2,7-dimethyloctano-1,8-dicarboxylate

$[\alpha]_D^{20} = -58$ (*c* 2, DMSO)

Source of chirality: L-alanine

Absolute configuration: 2*S*,7*S*

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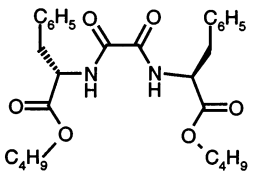
Tetrahedron: Asymmetry *13 (2002) 2053*



$C_{28}H_{36}N_2O_6$

Dibutyl (2*S*,7*S*)-3,6-diaza-4,5-dioxo-2,7-dibenzyloctano-1,8-dicarboxylate

$[\alpha]_D^{20} = -59$ (*c* 1, $CHCl_3$)

Source of chirality: L-phenylalanine

Absolute configuration: 2*S*,7*S*

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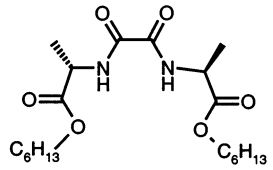
Tetrahedron: Asymmetry *13 (2002) 2053*



$[\alpha]_D^{20} = -51$ (c 2, DMSO)
Source of chirality: L-alanine
Absolute configuration: 2*S*,7*S*

$C_{20}H_{36}N_2O_6$
Dihexyl (2*S*,7*S*)-3,6-diaza-4,5-dioxo-2,7-dimethyloctano-1,8-dicarboxylate

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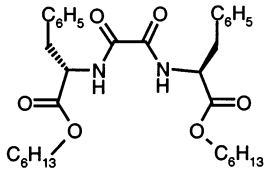
Tetrahedron: Asymmetry *13 (2002) 2053*



$[\alpha]_D^{20} = -45$ (c 1, $CHCl_3$)
Source of chirality: L-phenylalanine
Absolute configuration: 2*S*,7*S*

$C_{32}H_{44}N_2O_6$
Dihexyl (2*S*,7*S*)-3,6-diaza-4,5-dioxo-2,7-dibenzyloctano-1,8-dicarboxylate

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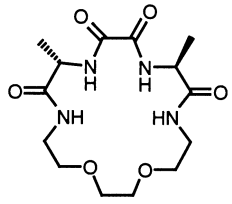
Tetrahedron: Asymmetry *13 (2002) 2053*



$[\alpha]_D^{20} = -121$ (c 0.75, H_2O)
Source of chirality: L-alanine
Absolute configuration: 3*S*,8*S*

$C_{14}H_{24}N_4O_6$
(3*S*,8*S*)-1,4,7,10-Tetraaza-3,8-dimethyl-13,16-dioxa-2,5,6,9-cyclooctadekatetraone

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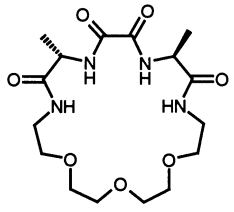
Tetrahedron: Asymmetry *13 (2002) 2053*

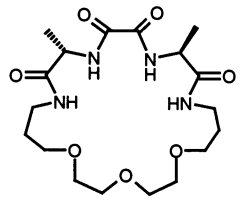


$[\alpha]_D^{20} = -72$ (c 0.5, H_2O)
Source of chirality: L-alanine
Absolute configuration: 3*S*,8*S*

$C_{16}H_{28}N_4O_7$
(3*S*,8*S*)-1,4,7,10-Tetraaza-3,8-dimethyl-13,16,19-trioxa-2,5,6,9-cyclohenicosatetraone

Tomasz Zieliński, Michał Achmatowicz and Janusz Jurczak*

Tetrahedron: Asymmetry *13 (2002) 2053*



$[\alpha]_D^{20} = -30$ (c 0.5, H_2O)
Source of chirality: L-alanine
Absolute configuration: 3*S*,8*S*

$C_{18}H_{32}N_4O_7$
(3*S*,8*S*)-1,4,7,10-Tetraaza-3,8-dimethyl-14,17,20-trioxa-2,5,6,9-cyclotricosatetraone

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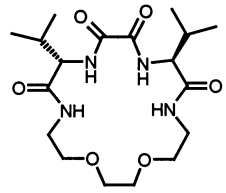
Tomasz Zieliński, Michał Achmatowicz and Janusz Jurczak*

Tetrahedron: Asymmetry *13 (2002) 2053*



$[\alpha]_D^{20} = -93$ (c 0.5, $CHCl_3$)
Source of chirality: L-valine
Absolute configuration: 3*S*,8*S*

$C_{18}H_{32}N_4O_6$
(3*S*,8*S*)-1,4,7,10-Tetraaza-3,8-diisopropyl-13,16-dioxa-2,5,6,9-cyclooctadekatetraone

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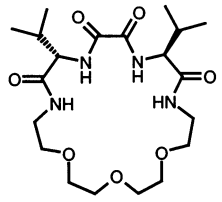
Tomasz Zieliński, Michał Achmatowicz and Janusz Jurczak*

Tetrahedron: Asymmetry *13 (2002) 2053*



$[\alpha]_D^{20} = -108$ (c 0.25, $CHCl_3$)
Source of chirality: L-valine
Absolute configuration: 3*S*,8*S*

$C_{20}H_{36}N_4O_7$
(3*S*,8*S*)-1,4,7,10-Tetraaza-3,8-diisopropyl-13,16,19-trioxa-2,5,6,9-cyclohenicosatetraone

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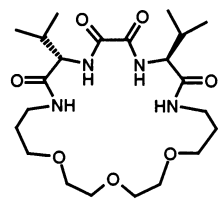
Tomasz Zieliński, Michał Achmatowicz and Janusz Jurczak*

Tetrahedron: Asymmetry *13 (2002) 2053*

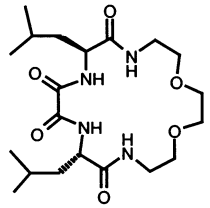


$[\alpha]_D^{20} = -27$ (c 0.45, $CHCl_3$)
Source of chirality: L-valine
Absolute configuration: 3*S*,8*S*

$C_{22}H_{40}N_4O_7$
(3*S*,8*S*)-1,4,7,10-Tetraaza-3,8-diisopropyl-14,17,20-trioxa-2,5,6,9-cyclotricosatetraone

Tomasz Zieliński, Michał Achmatowicz and Janusz Jurczak*

Tetrahedron: Asymmetry *13 (2002) 2053*



$C_{20}H_{36}N_4O_6$

(3*S*,8*S*)-1,4,7,10-Tetraaza-3,8-diisobutyl-13,16-dioxa-2,5,6,9-cyclooctadekatetraone

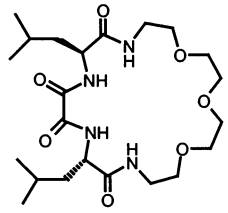
$[\alpha]_D^{20} = -91$ (*c* 1.3, MeOH)

Source of chirality: L-leucine

Absolute configuration: 3*S*,8*S*

Tomasz Zieliński, Michał Achmatowicz and Janusz Jurczak*

Tetrahedron: Asymmetry *13 (2002) 2053*



$C_{22}H_{40}N_4O_7$

(3*S*,8*S*)-1,4,7,10-Tetraaza-3,8-diisobutyl-13,16,19-trioxa-2,5,6,9-cyclohenicosatetraone

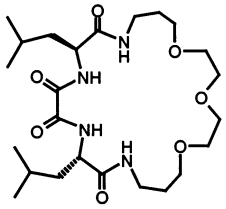
$[\alpha]_D^{20} = -79$ (*c* 0.66, DMSO)

Source of chirality: L-leucine

Absolute configuration: 3*S*,8*S*

Tomasz Zieliński, Michał Achmatowicz and Janusz Jurczak*

Tetrahedron: Asymmetry *13 (2002) 2053*



$C_{24}H_{44}N_4O_7$

(3*S*,8*S*)-1,4,7,10-Tetraaza-3,8-diisobutyl-14,17,20-trioxa-2,5,6,9-cyclotricosatetraone

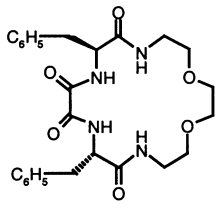
$[\alpha]_D^{20} = -58$ (*c* 0.66, DMSO)

Source of chirality: L-leucine

Absolute configuration: 3*S*,8*S*

Tomasz Zieliński, Michał Achmatowicz and Janusz Jurczak*

Tetrahedron: Asymmetry *13 (2002) 2053*



$C_{26}H_{32}N_4O_6$

(3*S*,8*S*)-1,4,7,10-Tetraaza-3,8-dibenzyl-13,16-dioxa-2,5,6,9-cyclooctadekatetraone

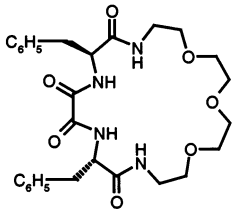
$[\alpha]_D^{20} = -120$ (*c* 0.25, DMSO)

Source of chirality: L-phenylalanine

Absolute configuration: 3*S*,8*S*

Tomasz Zieliński, Michał Achmatowicz and Janusz Jurczak*

Tetrahedron: Asymmetry *13 (2002) 2053*



$C_{28}H_{36}N_4O_7$

(3*S*,8*S*)-1,4,7,10-Tetraaza-3,8-dibenzyl-13,16,19-trioxa-2,5,6,9-cyclohenicosatetraone

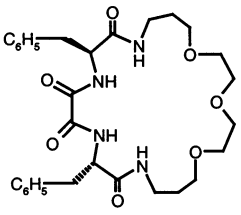
$[\alpha]_D^{20} = -60$ (*c* 0.45, $CHCl_3$)

Source of chirality: L-phenylalanine

Absolute configuration: 3*S*,8*S*

Tomasz Zieliński, Michał Achmatowicz and Janusz Jurczak*

Tetrahedron: Asymmetry *13 (2002) 2053*



$C_{30}H_{40}N_4O_7$

(3*S*,8*S*)-1,4,7,10-Tetraaza-3,8-dibenzyl-14,17,20-trioxa-2,5,6,9-cyclotricosatetraone

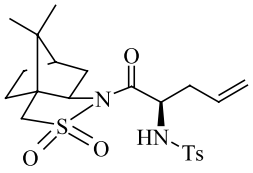
$[\alpha]_D^{20} = -11$ (*c* 0.4, $CHCl_3$)

Source of chirality: L-phenylalanine

Absolute configuration: 3*S*,8*S*

Anna Kulesza, Adam Mieczkowski and Janusz Jurczak*

Tetrahedron: Asymmetry *13 (2002) 2061*



$C_{22}H_{30}N_2O_5S_2$

(*R*)-*N*-Tosylallylglycine (2*R*)-bornano-10,2-sultam imide

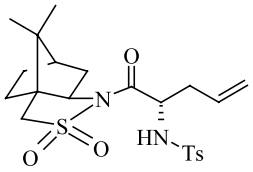
E.e. >96%

$[\alpha]_D^{20} = -28.2$ (*c* 1, $CHCl_3$)

Source of chirality: (2*R*)-bornano-10,2-sultam

Anna Kulesza, Adam Mieczkowski and Janusz Jurczak*

Tetrahedron: Asymmetry *13 (2002) 2061*



$C_{22}H_{30}N_2O_5S_2$

(*S*)-*N*-Tosylallylglycine (2*R*)-bornano-10,2-sultam imide

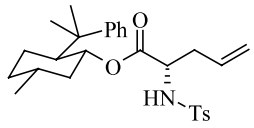
E.e. >96%

$[\alpha]_D^{20} = +20.6$ (*c* 1, $CHCl_3$)

Source of chirality: (2*R*)-bornano-10,2-sultam

Anna Kulesza, Adam Mieczkowski and Janusz Jurczak*

Tetrahedron: Asymmetry *13 (2002) 2061*



$C_{28}H_{37}NO_4S$

(*S*)-*N*-Tosylallylglycine 8-(*R*)-phenylmenthyl ester

E.e. >96%

$[\alpha]_D^{20} = +20.6$ (*c* 1, $CHCl_3$)

Source of chirality: (*R*)-8-phenylmenthol

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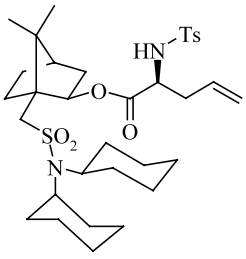
Tetrahedron: Asymmetry *13 (2002) 2061*



$C_{34}H_{52}N_2O_6S_2$

(*R*)-*N*-Tosylallylglycine 10-*N*,*N*-dicyclohexylosulfamoyl-(2*R*)-isobornyl ester

E.e. >96%

$[\alpha]_D^{20} = -29.2$ (*c* 1, $CHCl_3$)

Source of chirality: 10-*N*,*N*-dicyclohexylsulfamoyl-(*R*)-isoborneol

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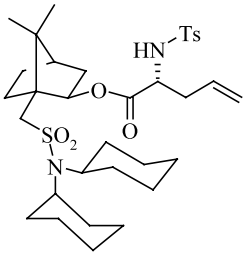
Tetrahedron: Asymmetry *13 (2002) 2061*



$C_{34}H_{52}N_2O_6S_2$

(*S*)-*N*-Tosylallylglycine 10-*N*,*N*-dicyclohexylosulfamoyl-(2*R*)-isobornyl ester

E.e. >96%

$[\alpha]_D^{20} = -14.0$ (*c* 1, $CHCl_3$)

Source of chirality: 10-*N*,*N*-dicyclohexylsulfamoyl-(*R*)-isoborneol

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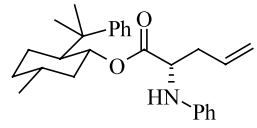
Tetrahedron: Asymmetry *13 (2002) 2061*



$C_{27}H_{35}NO_2$

(*S*)-*N*-Phenylallylglycine 8-(*R*)-phenylmenthyl ester

E.e. >96%

$[\alpha]_D^{20} = +24.3$ (*c* 1, $CHCl_3$)

Source of chirality: (*R*)-8-phenylmenthol

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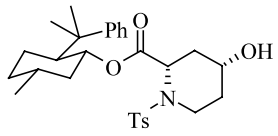
Tetrahedron: Asymmetry *13 (2002) 2061*



E.e. >96%

$[\alpha]_D^{20} = -12.8$ (c 1, $CHCl_3$)

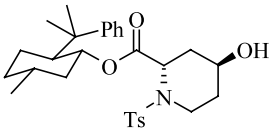
Source of chirality: (*R*)-8-phenylmenthol

$C_{29}H_{39}NO_5S$

N-Tosyl (2*S*,4*R*)-4-hydroxypipecolic acid (*R*)-8-phenylmenthyl ester

Anna Kulesza, Adam Mieczkowski and Janusz Jurczak*

Tetrahedron: Asymmetry *13 (2002) 2061*



E.e. >96%

$[\alpha]_D^{20} = -9.3$ (c 1, $CHCl_3$)

Source of chirality: (*R*)-8-phenylmenthol

$C_{29}H_{39}NO_5S$

N-Tosyl (2*S*,4*S*)-4-hydroxypipecolic acid (*R*)-8-phenylmenthyl ester