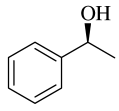
Jinbo Wang, Jian Feng, Ruixiang Qin, Haiyan Fu, Maolin Yuan, Hua Chen* and Xianjun Li

Tetrahedron: Asymmetry *18 (2007) 1643*

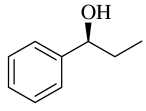


$C_8H_{10}O$
(*S*)-(−)-1-Phenylethanol

Ee = 80.3%
$[\alpha]_D^{28} = -23.2$ (*c* 1.08, CH_2Cl_2)
Source of chirality: asymmetric hydrogenation
Absolute configuration: (*S*)

Jinbo Wang, Jian Feng, Ruixiang Qin, Haiyan Fu, Maolin Yuan, Hua Chen* and Xianjun Li

Tetrahedron: Asymmetry *18 (2007) 1643*

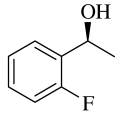


$C_9H_{12}O$
(*S*)-(−)-1-Phenylpropanol

Ee = 80.0%
$[\alpha]_D^{28} = -39.5$ (*c* 1.52, C_2H_5OH)
Source of chirality: asymmetric hydrogenation
Absolute configuration: (*S*)

Jinbo Wang, Jian Feng, Ruixiang Qin, Haiyan Fu, Maolin Yuan, Hua Chen* and Xianjun Li

Tetrahedron: Asymmetry *18 (2007) 1643*

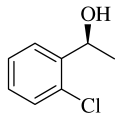


C_8H_9OF
(*S*)-(−)-1-(2′-Fluorophenyl)ethanol

Ee = 54.3%
$[\alpha]_D^{28} = -35.7$ (*c* 1.26, $CHCl_3$)
Source of chirality: asymmetric hydrogenation
Absolute configuration: (*S*)

Jinbo Wang, Jian Feng, Ruixiang Qin, Haiyan Fu, Maolin Yuan, Hua Chen* and Xianjun Li

Tetrahedron: Asymmetry *18 (2007) 1643*

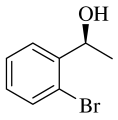


C_8H_9OCl
(*S*)-(−)-1-(2′-Chlorophenyl)ethanol

Ee = 77.3%
$[\alpha]_D^{28} = -29.5$ (*c* 1.76, $CHCl_3$)
Source of chirality: asymmetric hydrogenation
Absolute configuration: (*S*)

Jinbo Wang, Jian Feng, Ruixiang Qin, Haiyan Fu, Maolin Yuan, Hua Chen* and Xianjun Li

Tetrahedron: Asymmetry *18 (2007) 1643*



C_8H_9OBr

(*S*)-(−)-1-(2′-Bromophenyl)ethanol

Ee = 82.7%

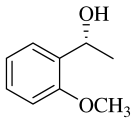
$[\alpha]_D^{28} = -31.3$ (*c* 1.60, $CHCl_3$)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (*S*)

Jinbo Wang, Jian Feng, Ruixiang Qin, Haiyan Fu, Maolin Yuan, Hua Chen* and Xianjun Li

Tetrahedron: Asymmetry *18 (2007) 1643*



$C_9H_{12}O_2$

(*R*)-(+)-1-(2′-Methoxyphenyl)ethanol

Ee = 45.4%

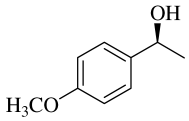
$[\alpha]_D^{28} = +33.3$ (*c* 1.05, $CHCl_3$)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (*R*)

Jinbo Wang, Jian Feng, Ruixiang Qin, Haiyan Fu, Maolin Yuan, Hua Chen* and Xianjun Li

Tetrahedron: Asymmetry *18 (2007) 1643*



$C_9H_{12}O_2$

(*S*)-(−)-1-(4′-Methoxyphenyl)ethanol

Ee = 76.5%

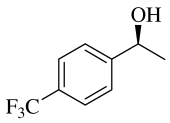
$[\alpha]_D^{28} = -29.1$ (*c* 1.03, $CHCl_3$)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (*S*)

Jinbo Wang, Jian Feng, Ruixiang Qin, Haiyan Fu, Maolin Yuan, Hua Chen* and Xianjun Li

Tetrahedron: Asymmetry *18 (2007) 1643*



$C_9H_9OF_3$

(*S*)-(−)-1-(4′-Trifluoromethylphenyl)ethanol

Ee = 58.7%

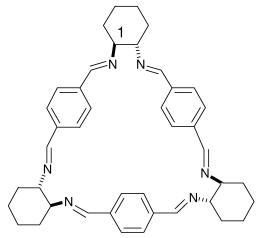
$[\alpha]_D^{28} = -39.0$ (*c* 1.41, CH_3OH)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (*S*)

Nikolai Kuhnert,* David Marsh and Daniel C. Nicolau

Tetrahedron: Asymmetry *18 (2007) 1648*



$C_{42}H_{54}N_6$

Ee >98%

$[\alpha]_D^{25} = +82$ (*c* 0.5, CH_2Cl_2), CD spectra obtained

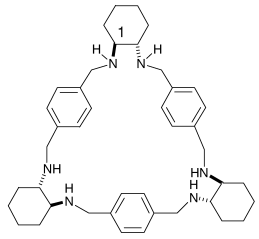
Source of chirality: chemical resolution via tartrate salt

Absolute configuration: (*all-S*)

(2*S*,3*S*,12*S*,13*S*,22*S*,23*S*)-1,4,11,14,21,24-Hexa-aza-(2,3:12,13:22,23)-tributano-(6,9:16,19:26,29)-trietheno-(1*H*,2*H*,3*H*,4*H*,5*H*,10*H*,11*H*,12*H*,13*H*,14*H*,15*H*,20*H*,21*H*,22*H*,23*H*,24*H*,25*H*,30*H*)-octadecahydro-(30)-annulene

Nikolai Kuhnert,* David Marsh and Daniel C. Nicolau

Tetrahedron: Asymmetry *18 (2007) 1648*



$C_{42}H_{60}N_6$

Ee >98%

$[\alpha]_D^{25} = +82.0$ (*c* 0.5, CH_2Cl_2), CD spectra obtained

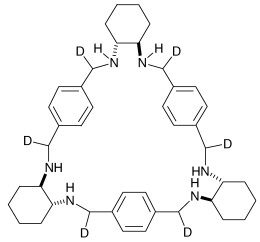
Source of chirality: chemical resolution via tartrate salt

Absolute configuration: (*all-S*)

(2*S*,3*S*,12*S*,13*S*,22*S*,23*S*)-1,4,11,14,21,24-Hexa-aza-(2,3:12,13:22,23)-tributano-(6,9:16,19:26,29)-trietheno-(1*H*,2*H*,3*H*,4*H*,5*H*,10*H*,11*H*,12*H*,13*H*,14*H*,15*H*,20*H*,21*H*,22*H*,23*H*,24*H*,25*H*,30*H*)-octadecahydro-(30)-annulene

Nikolai Kuhnert,* David Marsh and Daniel C. Nicolau

Tetrahedron: Asymmetry *18 (2007) 1648*



$C_{42}H_{54}D_6N_6$

Ee >98%

$[\alpha]_D^{25} = -79.0$ (*c* 0.5, $CHCl_3$), CD spectra obtained

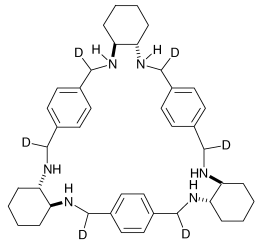
Source of chirality: chemical resolution via tartrate salt

Absolute configuration: (*all-R*)

(2*R*,3*R*,12*R*,13*R*,22*R*,23*R*)-1,4,11,14,21,24-Hexa-aza-(2,3:12,13:22,23)-tributano-(7,8′,17,18′,27,28′)-trietheno-(1*H*,2*H*,3*H*,4*H*,11*H*,12*H*,13*H*,14*H*,21*H*,22*H*,23*H*,24*H*)-duodecahydro-(5D,10D,15D,20D,25D,30D)-hexadeutero-(30)-annulene

Nikolai Kuhnert,* David Marsh and Daniel C. Nicolau

Tetrahedron: Asymmetry *18 (2007) 1648*



$C_{42}H_{54}D_6N_6$

Ee >98%

$[\alpha]_D^{25} = +80.1$ (*c* 0.5, CH_2Cl_2), CD spectra obtained

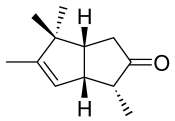
Source of chirality: chemical resolution via tartrate salt

Absolute configuration: (*all-S*)

(2*S*,3*S*,12*S*,13*S*,22*S*,23*S*)-1,4,11,14,21,24-Hexa-aza-(2,3:12,13:22,23)-tributano-(7,8′,17,18′,27,28′)-trietheno-(1*H*,2*H*,3*H*,4*H*,11*H*,12*H*,13*H*,14*H*,21*H*,22*H*,23*H*,24*H*)-duodecahydro-(5D,10D,15D,20D,25D,30D)-hexadeutero-(30)-annulene

Adusumilli Srikrishna* and Vijayendran Gowri

Tetrahedron: Asymmetry *18 (2007) 1663*

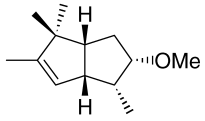


$[\alpha]_D^{22} = -41.5$ (*c* 5.9, $CHCl_3$)
Source of chirality: campholenaldehyde
Absolute configuration: (1*R*,4*R*,5*R*)

$C_{12}H_{18}O$
(1*R*,4*R*,5*R*)-4,7,8,8-Tetramethylbicyclo[3.3.0]oct-6-en-3-one

Adusumilli Srikrishna* and Vijayendran Gowri

Tetrahedron: Asymmetry *18 (2007) 1663*

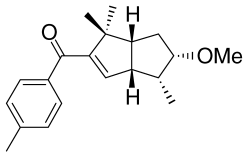


$[\alpha]_D^{23} = -23.9$ (*c* 16.2, $CHCl_3$)
Source of chirality: campholenaldehyde
Absolute configuration: (1*R*,3*S*,4*R*,5*R*)

$C_{13}H_{22}O$
(1*R*,3*S*,4*R*,5*R*)-3-Methoxy-4,7,8,8-tetramethylbicyclo[3.3.0]oct-6-ene

Adusumilli Srikrishna* and Vijayendran Gowri

Tetrahedron: Asymmetry *18 (2007) 1663*

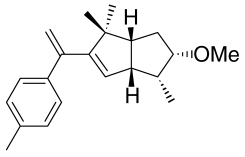


$[\alpha]_D^{25} = -32.4$ (*c* 5.1, $CHCl_3$)
Source of chirality: campholenaldehyde
Absolute configuration: (1*R*,5*R*,6*R*,7*S*)

$C_{20}H_{26}O_2$
(1*R*,5*R*,6*R*,7*S*)-7-Methoxy-2,2,6-trimethylbicyclo[3.3.0]oct-3-en-3-yl 4-methylphenyl ketone

Adusumilli Srikrishna* and Vijayendran Gowri

Tetrahedron: Asymmetry *18 (2007) 1663*



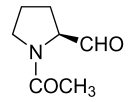
$[\alpha]_D^{24} = -26.5$ (*c* 2.0, $CHCl_3$)
Source of chirality: campholenaldehyde
Absolute configuration: (1*R*,5*R*,6*R*,7*S*)

$C_{21}H_{28}O$
(1*R*,5*R*,6*R*,7*S*)-7-Methoxy-2,2,6-trimethyl-3-[1-(4-methylphenyl)ethenyl]-bicyclo[3.3.0]oct-3-ene

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana, Alessandra Forni and Concetta La Rosa*

Tetrahedron: Asymmetry *18 (2007) 1667*

Dr = >99% [NMR]
$[\alpha]_D^{20} = -37.5$ (*c* 1.07, $CHCl_3$)
Absolute configuration: (*S*)



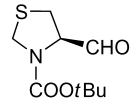
$C_7H_{11}NO_2$

(*S*)-1-Acetyl-pyrrolidine-2-carbaldehyde

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana, Alessandra Forni and Concetta La Rosa*

Tetrahedron: Asymmetry *18 (2007) 1667*

Dr = >99% [NMR]
$[\alpha]_D^{20} = -130$ (*c* 0.81, CH_3OH)
Absolute configuration: (*R*)



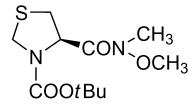
$C_9H_{15}NO_3S$

(*R*)-4-Formyl-1,3-thiazolidine-3-carboxylic acid, *tert*-butyl ester

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana, Alessandra Forni and Concetta La Rosa*

Tetrahedron: Asymmetry *18 (2007) 1667*

Dr = >99% [NMR]
$[\alpha]_D^{20} = -117$ (*c* 0.91, CH_3OH)
Absolute configuration: (*R*)



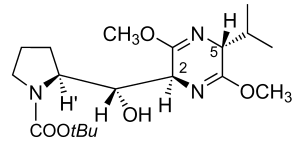
$C_{11}H_{20}N_2O_4S$

(*R*)-4-[(*N*-Methoxy-*N*-methylamino)carbonyl]-3-thiazolidinecarboxylic acid, 1,1-dimethyl ester

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana, Alessandra Forni and Concetta La Rosa*

Tetrahedron: Asymmetry *18 (2007) 1667*

Dr = >99% [NMR]
$[\alpha]_D^{20} = +13.8$ (*c* 0.98, Et_2O)
Source of chirality: Schöllkopf's reagent
Absolute configuration: (*S*,*R*,*S*,*R*)

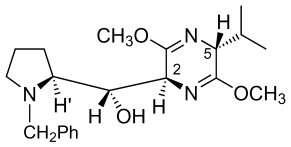


$C_{19}H_{33}N_3O_5$

(*S*)-2-[(*R*)-Hydroxy-((2*S*,5*R*)-5-isopropyl-3,6-dimethoxy-2,5-dihydro-pyrazin-2-yl)-methyl]-pyrrolidine-1-carboxylic acid *tert*-butyl ester

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana, Alessandra Forni and Concetta La Rosa*

Tetrahedron: Asymmetry *18 (2007) 1667*



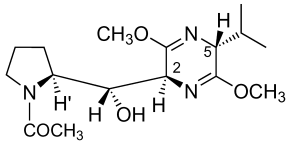
Dr = >99% [NMR]
$[\alpha]_D^{20} = +8.0$ (c 0.65, $CHCl_3$)
Source of chirality: Schöllkopf's reagent
Absolute configuration: (*R*,*S*,*S*,*R*)

$C_{21}H_{31}N_3O_3$

(*R*)-((*S*)-1-Benzyl-pyrrolidin-2-yl)-((2*S*,5*R*)-5-isopropyl-3,6-dimethoxy-2,5-dihydro-pyrazin-2-yl)-methanol

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana, Alessandra Forni and Concetta La Rosa*

Tetrahedron: Asymmetry *18 (2007) 1667*



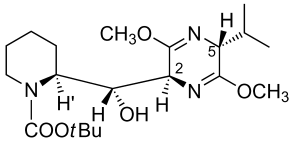
Dr = >99% [NMR]
$[\alpha]_D^{20} = +6.9$ (c 0.84, $CHCl_3$)
Source of chirality: Schöllkopf's reagent
Absolute configurations: (*S*,*R*,*S*,*R*)

$C_{16}H_{27}N_3O_4$

(*R*)-4-[(*S*)-Hydroxy-((2*S*,5*R*)-5-isopropyl-3,6-dimethoxy-2,5-dihydro-pyrazin-2-yl)-methyl]-thiazolidine-3-carboxylic acid *tert*-butyl ester

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana, Alessandra Forni and Concetta La Rosa*

Tetrahedron: Asymmetry *18 (2007) 1667*



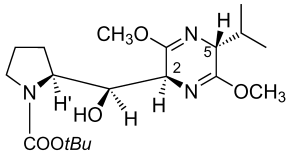
Dr = >99% [NMR]
$[\alpha]_D^{20} = +23.3$ (c 1.72, CH_2Cl_2)
Source of chirality: Schöllkopf's reagent
Absolute configurations: (*S*,*R*,*S*,*R*)

$C_{20}H_{35}N_3O_5$

(*S*)-2-[(*R*)-Hydroxy-((2*S*,5*R*)-5-isopropyl-3,6-dimethoxy-2,5-dihydro-pyrazin-2-yl)-methyl]-piperidine-1-carboxylic acid *tert*-butyl ester

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana, Alessandra Forni and Concetta La Rosa*

Tetrahedron: Asymmetry *18 (2007) 1667*



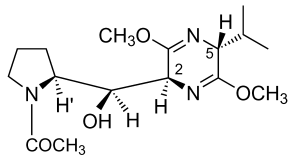
Dr = >99% [NMR]
$[\alpha]_D^{20} = -6.2$ (c 0.84, Et_2O)
Source of chirality: Schöllkopf's reagent
Absolute configurations: (*S*,*S*,*S*,*R*)

$C_{19}H_{33}N_3O_5$

(*S*)-2-[(*S*)-Hydroxy-((2*S*,5*R*)-5-isopropyl-3,6-dimethoxy-2,5-dihydro-pyrazin-2-yl)-methyl]-pyrrolidine-1-carboxylic acid *tert*-butyl ester

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana, Alessandra Forni and Concetta La Rosa*

Tetrahedron: Asymmetry *18 (2007) 1667*



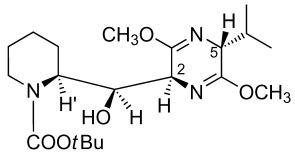
$C_{16}H_{27}N_3O_4$

Dr = >99% [NMR]
$[\alpha]_D^{20} = +0.3$ (*c* 1.01, $CHCl_3$)
Source of chirality: Schöllkopf's reagent
Absolute configurations: (*S*,*S*,*S*,*R*)

1-{(*S*)-2-[(*S*)-Hydroxy-((2*S*,5*R*)-5-isopropyl-3,6-dimethoxy-2,5-dihydro-pyrazin-2-yl)-methyl]-pyrrolidine-1-yl}-ethanone

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana, Alessandra Forni and Concetta La Rosa*

Tetrahedron: Asymmetry *18 (2007) 1667*



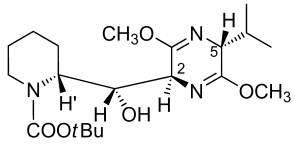
$C_{20}H_{35}N_3O_5$

Dr = >99% [NMR]
$[\alpha]_D^{20} = -3.1$ (*c* 0.62, CH_2Cl_2)
Source of chirality: Schöllkopf's reagent
Absolute configurations: (*S*,*S*,*S*,*R*)

(*S*)-2-[(*S*)-Hydroxy-((2*S*,5*R*)-5-isopropyl-3,6-dimethoxy-2,5-dihydro-pyrazin-2-yl)-methyl]-piperidine-1-carboxylic acid *tert*-butyl ester

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana, Alessandra Forni and Concetta La Rosa*

Tetrahedron: Asymmetry *18 (2007) 1667*



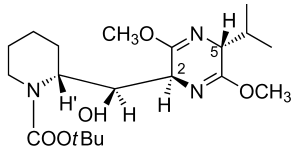
$C_{20}H_{35}N_3O_5$

Dr = >99% [NMR]
$[\alpha]_D^{20} = -26.95$ (*c* 1.1, CH_2Cl_2)
Source of chirality: Schöllkopf's reagent
Absolute configurations: (*R*,*R*,*S*,*R*)

(*R*)-2-[(*R*)-Hydroxy-((2*S*,5*R*)-5-isopropyl-3,6-dimethoxy-2,5-dihydro-pyrazin-2-yl)-methyl]-piperidine-1-carboxylic acid *tert*-butyl ester

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana, Alessandra Forni and Concetta La Rosa*

Tetrahedron: Asymmetry *18 (2007) 1667*



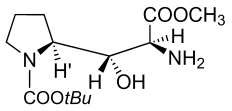
$C_{20}H_{35}N_3O_5$

Dr = >99% [NMR]
$[\alpha]_D^{20} = +14.3$ (*c* 1.04, CH_2Cl_2)
Source of chirality: Schöllkopf's reagent
Absolute configurations: (*R*,*S*,*S*,*R*)

(*R*)-2-[(*S*)-Hydroxy-((2*S*,5*R*)-5-isopropyl-3,6-dimethoxy-2,5-dihydro-pyrazin-2-yl)-methyl]-piperidine-1-carboxylic acid *tert*-butyl ester

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana, Alessandra Forni and Concetta La Rosa*

Tetrahedron: Asymmetry *18 (2007) 1667*



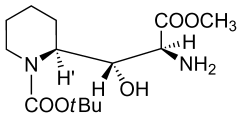
Dr = >99% [NMR]
$[\alpha]_D^{20} = -51.1$ (*c* 0.86, CH_2Cl_2)
Source of chirality: Schöllkopf's reagent
Absolute configurations: (*S*,*S*,*S*)

$C_{13}H_{24}N_2O_5$

(*S*)-2-[(*S*)-2-Amino-(*S*)-1-hydroxy-2-methoxycarbonyl-ethyl]-pyrrolidine-1-carboxylic acid *tert*-butyl ester

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana, Alessandra Forni and Concetta La Rosa*

Tetrahedron: Asymmetry *18 (2007) 1667*



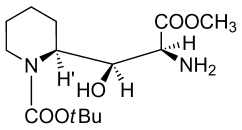
Dr = >99% [NMR]
$[\alpha]_D^{20} = -30.0$ (*c* 0.5, CH_2Cl_2)
Source of chirality: Schöllkopf's reagent
Absolute configurations: (*S*,*S*,*S*)

$C_{14}H_{26}N_2O_5$

(*S*)-2-[(*S*)-2-Amino-(*S*)-1-hydroxy-2-methoxycarbonyl-ethyl]-piperidine-1-carboxylic acid *tert*-butyl ester

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana, Alessandra Forni and Concetta La Rosa*

Tetrahedron: Asymmetry *18 (2007) 1667*



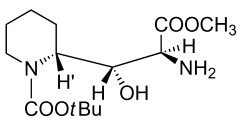
Dr = >99% [NMR]
$[\alpha]_D^{20} = -54.25$ (*c* 0.92, CH_2Cl_2)
Source of chirality: Schöllkopf's reagent
Absolute configurations: (*S*,*S*,*R*)

$C_{14}H_{26}N_2O_5$

(*S*)-2-[(*S*)-2-Amino-(*R*)-1-hydroxy-2-methoxycarbonyl-ethyl]- piperidine-1-carboxylic acid *tert*-butyl ester

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana, Alessandra Forni and Concetta La Rosa*

Tetrahedron: Asymmetry *18 (2007) 1667*



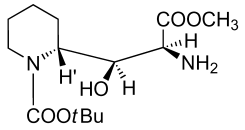
Dr = >99% [NMR]
$[\alpha]_D^{20} = +67.95$ (*c* 0.63, CH_2Cl_2)
Source of chirality: Schöllkopf's reagent
Absolute configurations: (*R*,*S*,*S*)

$C_{14}H_{26}N_2O_5$

(*R*)-2-[(*S*)-2-Amino-(*S*)-1-hydroxy-2-methoxycarbonyl-ethyl]-piperidine-1-carboxylic acid *tert*-butyl ester

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana, Alessandra Forni and Concetta La Rosa*

Tetrahedron: Asymmetry *18 (2007) 1667*



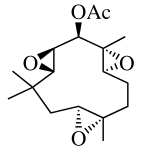
Dr = >99% [NMR]
$[\alpha]_D^{20} = 21.3$ (*c* 0.5, CH_2Cl_2)
Source of chirality: Schöllkopf's reagent
Absolute configurations: (*R*,*S*,*R*)

$C_{14}H_{26}N_2O_5$

(*R*)-2-[(*S*)-2-Amino-(*R*)-1-hydroxy-2-methoxycarbonyl-ethyl]-piperidine-1-carboxylic acid *tert*-butyl ester

Takashi Kitayama,* Yasuhiko Yoshida, Jun-ichi Furukawa, Yasushi Kawai and Seiji Sawada

Tetrahedron: Asymmetry *18 (2007) 1676*



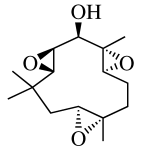
Ee = 96% [capillary GC with chiral column (CPCD)]
$[\alpha]_D^{23.5} = +50.6$ (*c* 1.00, $CHCl_3$)
Absolute configuration: (1*R*,2*R*,3*S*,6*S*,7*S*,10*S*,11*R*)

$C_{17}H_{26}O_5$

(1*R*,2*R*,3*S*,6*S*,7*S*,10*S*,11*R*)-1-Acetoxy-2,3-6,7-10,11-triepoxy-2,6,9,9-tetramethylcycloundecane

Takashi Kitayama,* Yasuhiko Yoshida, Jun-ichi Furukawa, Yasushi Kawai and Seiji Sawada

Tetrahedron: Asymmetry *18 (2007) 1676*



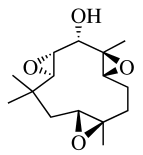
Ee = 96% [capillary GC with chiral column (CPCD)]
$[\alpha]_D^{23.5} = +111.1$ (*c* 1.00, $CHCl_3$)
Absolute configuration: (1*R*,2*S*,3*S*,6*S*,7*S*,10*S*,11*S*)

$C_{15}H_{24}O_4$

(1*R*,2*S*,3*S*,6*S*,7*S*,10*S*,11*S*)-2,3-6,7-10,11-Triepoxy-2,6,9,9-tetramethylcycloundecan-l-ol

Takashi Kitayama,* Yasuhiko Yoshida, Jun-ichi Furukawa, Yasushi Kawai and Seiji Sawada

Tetrahedron: Asymmetry *18 (2007) 1676*



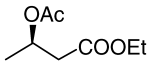
Ee = 45% [capillary GC with chiral column (CPCD)]
$[\alpha]_D^{23.5} = -58.8$ (*c* 1.00, $CHCl_3$)
Absolute configuration: (1*S*,2*R*,3*R*,6*R*,7*R*,10*R*,11*R*)

$C_{15}H_{24}O_4$

(1*S*,2*R*,3*R*,6*R*,7*R*,10*R*,11*R*)-2,3-6,7-10,11-Triepoxy-2,6,9,9-tetramethylcycloundecan-l-ol

Mihaela C. Turcu, Eero Kiljunen and Liisa T. Kanerva*

Tetrahedron: Asymmetry *18 (2007) 1682*



$C_8H_{14}O_4$

Ethyl (*R*)-3-acetoxybutanoate

Ee = 92%

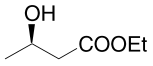
$[\alpha]_D^{25} = +2.9$ (*c* 1, $CHCl_3$)

Source of chirality: enzymatic catalysis

Absolute configuration: (3*R*)

Mihaela C. Turcu, Eero Kiljunen and Liisa T. Kanerva*

Tetrahedron: Asymmetry *18 (2007) 1682*



$C_6H_{12}O_3$

Ethyl (*R*)-3-hydroxybutanoate

Ee >99%

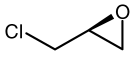
$[\alpha]_D^{25} = -43.1$ (*c* 1, $CHCl_3$)

Source of chirality: enzymatic catalysis

Absolute configuration: (3*R*)

Priti Gupta and Pradeep Kumar*

Tetrahedron: Asymmetry *18 (2007) 1688*



C_3H_5ClO

(*S*)-2-(Chloromethyl)oxirane

Ee >99%

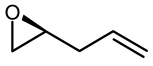
$[\alpha]_D^{25} = +30.6$ (*c* 1.2, MeOH)

Source of chirality: Jacobsen's hydrolytic kinetic resolution

Absolute configuration: (*S*)

Priti Gupta and Pradeep Kumar*

Tetrahedron: Asymmetry *18 (2007) 1688*



C_5H_8O

(*S*)-2-Allyloxirane

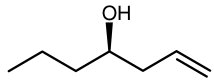
$[\alpha]_D^{25} = -16.2$ (neat)

Source of chirality: Jacobsen's hydrolytic kinetic resolution

Absolute configuration: (*S*)

Priti Gupta and Pradeep Kumar*

Tetrahedron: Asymmetry *18 (2007) 1688*



$C_7H_{14}O$

(*R*)-Hept-1-en-4-ol

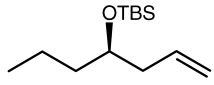
$[\alpha]_D^{25} = -17.4$ (*c* 1.1, $CHCl_3$)

Source of chirality: Jacobsen's hydrolytic kinetic resolution

Absolute configuration: (*R*)

Priti Gupta and Pradeep Kumar*

Tetrahedron: Asymmetry *18 (2007) 1688*



$C_{12}H_{15}N_3O$

(*R*)-*tert*-Butyl(hept-1-en-4-yloxy)dimethylsilane

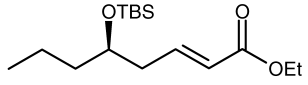
$[\alpha]_D^{25} = -21.2$ (*c* 1.0, $CHCl_3$)

Source of chirality: Jacobsen's hydrolytic kinetic resolution

Absolute configuration: (*R*)

Priti Gupta and Pradeep Kumar*

Tetrahedron: Asymmetry *18 (2007) 1688*



$C_{16}H_{32}O_3Si$

(*R*,*E*)-Ethyl 5-(*tert*-butyldimethylsilyloxy)oct-2-enoate

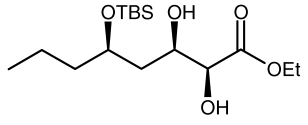
$[\alpha]_D^{25} = -23.1$ (*c* 1.1, $CHCl_3$)

Source of chirality: Jacobsen's hydrolytic kinetic resolution

Absolute configuration: (*R*)

Priti Gupta and Pradeep Kumar*

Tetrahedron: Asymmetry *18 (2007) 1688*



$C_{16}H_{34}O_5Si$

(2*S*,3*R*,5*R*)-Ethyl 5-(*tert*-butyldimethylsilyloxy)-2,3-dihydroxyoctanoate

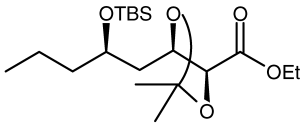
$[\alpha]_D^{25} = -11.2$ (*c* 1.0, $CHCl_3$)

Source of chirality: Jacobsen's hydrolytic kinetic resolution, Sharpless asymmetric dihydroxylation

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

Priti Gupta and Pradeep Kumar*

Tetrahedron: Asymmetry *18 (2007) 1688*



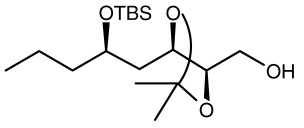
$[\alpha]_D^{25} = -24.1$ (*c* 0.8, $CHCl_3$)
Source of chirality: Jacobsen's hydrolytic kinetic resolution, Sharpless asymmetric dihydroxylation
Absolute configuration: (2′*R*,4*S*,5*R*)

$C_{19}H_{38}O_5Si$

(4*S*,5*R*)-Ethyl 5-((*R*)-2′-(*tert*-butyldimethylsilyloxy)pentyl)-2,2-dimethyl-1,3-dioxolane-4-carboxylate

Priti Gupta and Pradeep Kumar*

Tetrahedron: Asymmetry *18 (2007) 1688*



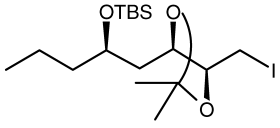
$[\alpha]_D^{25} = -16.2$ (*c* 1.1, $CHCl_3$)
Source of chirality: Jacobsen's hydrolytic kinetic resolution, Sharpless asymmetric dihydroxylation
Absolute configuration: (2′*R*,4*R*,5*R*)

$C_{17}H_{36}O_4Si$

((4*R*,5*R*)-5-((*R*)-2′-(*tert*-Butyldimethylsilyloxy)pentyl)-2,2-dimethyl-1,3-dioxolan-4-yl)methanol

Priti Gupta and Pradeep Kumar*

Tetrahedron: Asymmetry *18 (2007) 1688*



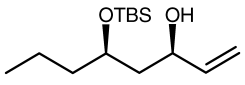
$[\alpha]_D^{25} = -64.7$ (*c* 1.0, $CHCl_3$)
Source of chirality: Jacobsen's hydrolytic kinetic resolution, Sharpless asymmetric dihydroxylation
Absolute configuration: (4*R*,5*S*)

$C_{17}H_{35}IO_3Si$

tert-Butyl((*R*)-1-((4*R*,5*S*)-5-(iodomethyl)-2,2-dimethyl-1,3-dioxolan-4-yl)pentan-2-yloxy)dimethylsilane

Priti Gupta and Pradeep Kumar*

Tetrahedron: Asymmetry *18 (2007) 1688*



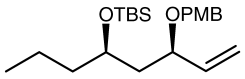
$[\alpha]_D^{25} = -32.1$ (*c* 1.0, $CHCl_3$)
Source of chirality: Jacobsen's hydrolytic kinetic resolution, Sharpless asymmetric dihydroxylation
Absolute configuration: (3*R*,5*R*)

$C_{14}H_{30}O_2Si$

(3*R*,5*R*)-5-(*tert*-Butyldimethylsilyloxy)oct-1-en-3-ol

Priti Gupta and Pradeep Kumar*

Tetrahedron: Asymmetry *18 (2007) 1688*



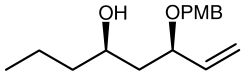
$C_{22}H_{38}O_3Si$

tert-Butyl((4*R*,6*R*)-6-(4-methoxybenzyloxy)oct-7-en-4-yloxy)dimethylsilane

$[\alpha]_D^{25} = -38.3$ (*c* 1.1, $CHCl_3$)
Source of chirality: Jacobsen's hydrolytic kinetic resolution, Sharpless asymmetric dihydroxylation
Absolute configuration: (4*R*,6*R*)

Priti Gupta and Pradeep Kumar*

Tetrahedron: Asymmetry *18 (2007) 1688*



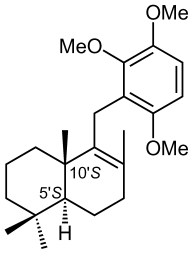
$C_{16}H_{24}O_3$

(4*R*,6*R*)-6-(4-Methoxybenzyloxy)oct-7-en-4-ol

$[\alpha]_D^{25} = -9.6$ (*c* 0.80, $CHCl_3$)
Source of chirality: Jacobsen's hydrolytic kinetic resolution, Sharpless asymmetric dihydroxylation
Absolute configuration: (4*R*,6*R*)

Yuusuke Arima, Masako Kinoshita and Hiroyuki Akita*

Tetrahedron: Asymmetry *18 (2007) 1701*



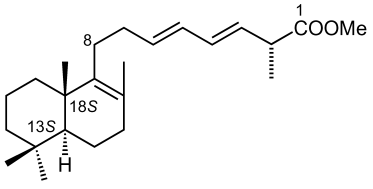
$C_{24}H_{36}O_3$

(+)-1,2,4-Trimethoxy-3-[5′*S*,10′*S*,8′(9′)-drimen-11′-yl]benzene

Ee = >99%
$[\alpha]_D^{22} = +69.7$ (*c* 1.71, $CHCl_3$)
Source of chirality: lipase
Absolute configuration: (5′*S*,10′*S*)

Yuusuke Arima, Masako Kinoshita and Hiroyuki Akita*

Tetrahedron: Asymmetry *18 (2007) 1701*



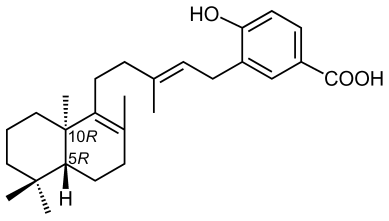
$C_{25}H_{40}O_2$

(+)-Norsesterterpene diene ester

Ee = >99%
$[\alpha]_D^{24} = +12.4$ (*c* 0.55, $CHCl_3$)
Source of chirality: lipase
Absolute configuration: (2*R*,13*S*,18*S*)

Yuusuke Arima, Masako Kinoshita and Hiroyuki Akita*

Tetrahedron: Asymmetry *18 (2007) 1701*



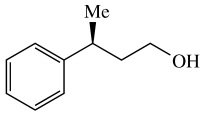
$C_{27}H_{38}O_3$

(−)-Subersic acid

Ee = 98%
$[\alpha]_D^{24} = -46.7$ (*c* 0.17, $CHCl_3$)
Source of chirality: lipase
Absolute configuration: (5*R*,10*R*)

Sunil Sabbani, Erik Hedenström* and Jimmy Andersson

Tetrahedron: Asymmetry *18 (2007) 1712*



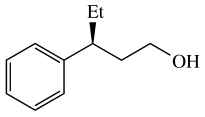
$C_{10}H_{14}O$

(*S*)-(+)-3-Phenyl-1-butanol

$[\alpha]_D^{20} = +11.5$ (*c* 0.4, $CDCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: (*S*)

Sunil Sabbani, Erik Hedenström* and Jimmy Andersson

Tetrahedron: Asymmetry *18 (2007) 1712*



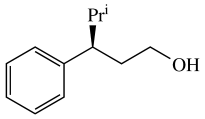
$C_{11}H_{16}O$

(*S*)-(+)-3-Phenyl-1-pentanol

$[\alpha]_D^{20} = +2.5$ (*c* 0.8, $CDCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: (*S*)

Sunil Sabbani, Erik Hedenström* and Jimmy Andersson

Tetrahedron: Asymmetry *18 (2007) 1712*



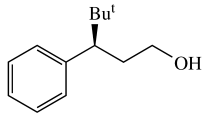
$C_{12}H_{18}O$

(*R*)-(+)-4-Methyl-3-phenyl-1-pentanol

$[\alpha]_D^{20} = +7.25$ (*c* 4.0, $CDCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: (*R*)

Sunil Sabbani, Erik Hedenström* and Jimmy Andersson

Tetrahedron: Asymmetry *18 (2007) 1712*

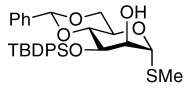


$[\alpha]_D^{20} = +11.3$ (*c* 4.0, benzene)
Source of chirality: enzymatic resolution
Absolute configuration: (*R*)

$C_{13}H_{20}O$
(*R*)-(+)-4,4-Dimethyl-3-phenyl-1-pentanol

Emanuele Attolino, Thomas W. D. F. Rising, Christoph D. Heidecke and Antony J. Fairbanks*

Tetrahedron: Asymmetry *18 (2007) 1721*

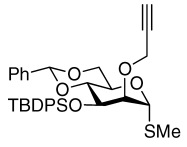


Ee = 100%
$[\alpha]_D^{17} = +115$ (*c* 1.0, $CHCl_3$)
Source of chirality: D-mannose

$C_{30}H_{36}O_5SSi$
Methyl 4,6-*O*-benzylidene-3-*O*-*tert*-butyldiphenylsilyl-1-thio-α-D-mannopyranoside

Emanuele Attolino, Thomas W. D. F. Rising, Christoph D. Heidecke and Antony J. Fairbanks*

Tetrahedron: Asymmetry *18 (2007) 1721*

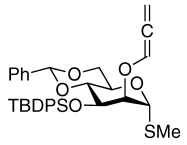


Ee = 100%
$[\alpha]_D^{17} = +122$ (*c* 0.9, $CHCl_3$)
Source of chirality: D-mannose

$C_{33}H_{38}O_5SSi$
Methyl 4,6-*O*-benzylidene-2-*O*-(prop-2-ynyl)-3-*O*-*tert*-butyldiphenylsilyl-1-thio-α-D-mannopyranoside

Emanuele Attolino, Thomas W. D. F. Rising, Christoph D. Heidecke and Antony J. Fairbanks*

Tetrahedron: Asymmetry *18 (2007) 1721*

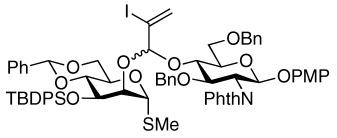


Ee = 100%
$[\alpha]_D^{20} = +67$ (*c* 1.0, $CHCl_3$)
Source of chirality: D-mannose

$C_{33}H_{38}O_5SSi$
Methyl 4,6-*O*-benzylidene-2-*O*-(allenyl)-3-*O*-*tert*-butyldiphenylsilyl-1-thio-α-D-mannopyranoside

Emanuele Attolino, Thomas W. D. F. Rising, Christoph D. Heidecke and Antony J. Fairbanks*

Tetrahedron: Asymmetry *18 (2007) 1721*



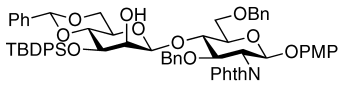
Ee = 100%
$[\alpha]_D^{20} = +79$ (*c* 0.8, $CHCl_3$)
Source of chirality: D-mannose, *N*-acetyl-D-glucosamine

$C_{68}H_{70}INO_{13}SSi$

Methyl 4,6-*O*-benzylidene-3-*O*-*tert*-butyldiphenylsilyl-2-*O*-(2-iodo-1-(*para*-methoxyphenyl 3,6-di-*O*-benzyl-2-deoxy-2-phthalimido-β-D-glucopyranosid-4-*O*-yl)prop-2-enyl)-1-thio-α-D-mannopyranoside

Emanuele Attolino, Thomas W. D. F. Rising, Christoph D. Heidecke and Antony J. Fairbanks*

Tetrahedron: Asymmetry *18 (2007) 1721*



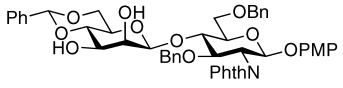
Ee = 100%
$[\alpha]_D^{21} = +49$ (*c* 1.0, $CHCl_3$)
Source of chirality: D-mannose, *N*-acetyl-D-glucosamine

$C_{64}H_{65}NO_{13}Si$

p-Methoxyphenyl-4,6-*O*-benzylidene-3-*O*-*tert*-butyldiphenylsilyl-β-D-mannopyranosyl-(1→4)-3,6-di-*O*-benzyl-2-deoxy-2-phthalimido-β-D-glucopyranoside

Emanuele Attolino, Thomas W. D. F. Rising, Christoph D. Heidecke and Antony J. Fairbanks*

Tetrahedron: Asymmetry *18 (2007) 1721*



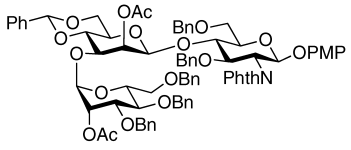
Ee = 100%
$[\alpha]_D^{17} = +41$ (*c* 0.8, $CHCl_3$)
Source of chirality: D-mannose, *N*-acetyl-D-glucosamine

$C_{48}H_{47}NO_{13}$

p-Methoxyphenyl-4,6-*O*-benzylidene-β-D-mannopyranosyl-(1→4)-3,6-di-*O*-benzyl-2-deoxy-2-phthalimido-β-D-glucopyranoside

Emanuele Attolino, Thomas W. D. F. Rising, Christoph D. Heidecke and Antony J. Fairbanks*

Tetrahedron: Asymmetry *18 (2007) 1721*



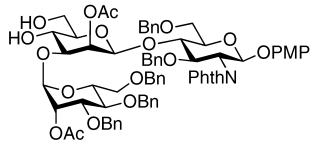
Ee = 100%
$[\alpha]_D^{23} = +20$ (*c* 1.0, $CHCl_3$)
Source of chirality: D-mannose, *N*-acetyl-D-glucosamine

$C_{79}H_{79}NO_{20}$

p-Methoxyphenyl 2-*O*-acetyl-3,4,6-tri-*O*-benzyl-α-D-mannopyranosyl-(1→3)-2-*O*-acetyl-4,6-*O*-benzylidene-β-D-mannopyranosyl-(1→4)-3,6-di-*O*-benzyl-2-deoxy-2-phthalamido-β-D-glucopyranoside

Emanuele Attolino, Thomas W. D. F. Rising, Christoph D. Heidecke and Antony J. Fairbanks*

Tetrahedron: Asymmetry *18 (2007) 1721*



Ee = 100%

$[\alpha]_D^{23} = +40$ (*c* 0.5, $CHCl_3$)

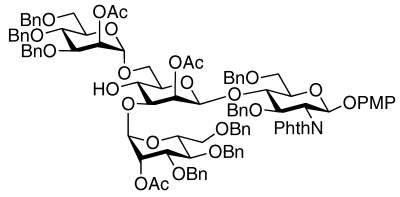
Source of chirality: D-mannose, *N*-acetyl-D-glucosamine

$C_{72}H_{75}NO_{20}$

p-Methoxyphenyl 2-*O*-acetyl-3,4,6-tri-*O*-benzyl-α-D-mannopyranosyl-(1→3)-2-*O*-acetyl-β-D-mannopyranosyl-(1→4)-3,6-di-*O*-benzyl-2-deoxy-2-phthalamido-β-D-glucopyranoside

Emanuele Attolino, Thomas W. D. F. Rising, Christoph D. Heidecke and Antony J. Fairbanks*

Tetrahedron: Asymmetry *18 (2007) 1721*



Ee = 100%

$[\alpha]_D^{22} = +39$ (*c* 0.25, $CHCl_3$)

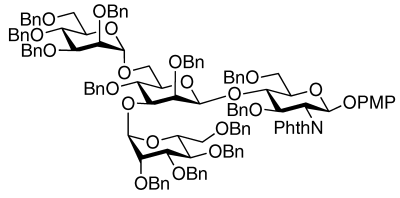
Source of chirality: D-mannose, *N*-acetyl-D-glucosamine

$C_{101}H_{105}NO_{26}$

p-Methoxyphenyl 2-*O*-acetyl-3,4,6-tri-*O*-benzyl-α-D-mannopyranosyl-(1→6)-[2-*O*-acetyl-3,4,6-tri-*O*-benzyl-α-D-mannopyranosyl-(1→3)]-2-*O*-acetyl-β-D-mannopyranosyl-(1→4)-3,6-di-*O*-benzyl-2-deoxy-2-phthalamido-β-D-glucopyranoside

Emanuele Attolino, Thomas W. D. F. Rising, Christoph D. Heidecke and Antony J. Fairbanks*

Tetrahedron: Asymmetry *18 (2007) 1721*



Ee = 100%

$[\alpha]_D^{17} = +42$ (*c* 0.5, $CHCl_3$)

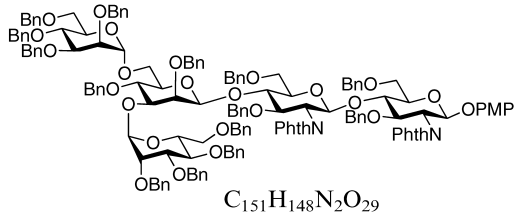
Source of chirality: D-mannose, *N*-acetyl-D-glucosamine

$C_{123}H_{123}NO_{23}$

p-Methoxyphenyl 2,3,4,6-tetra-*O*-benzyl-α-D-mannopyranosyl-(1→6)-[2,3,4,6-tetra-*O*-benzyl-α-D-mannopyranosyl-(1→3)]-2,4-di-*O*-benzyl-β-D-mannopyranosyl-(1→4)-3,6-di-*O*-benzyl-2-deoxy-2-phthalamido-β-D-glucopyranoside

Emanuele Attolino, Thomas W. D. F. Rising, Christoph D. Heidecke and Antony J. Fairbanks*

Tetrahedron: Asymmetry *18 (2007) 1721*



Ee = 100%

$[\alpha]_D^{17} = +30$ (*c* 0.9, $CHCl_3$)

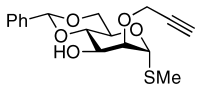
Source of chirality: D-mannose, *N*-acetyl-D-glucosamine

$C_{151}H_{148}N_2O_{29}$

p-Methoxyphenyl 2,3,4,6-tetra-*O*-benzyl-α-D-mannopyranosyl-(1→6)-[2,3,4,6-tetra-*O*-benzyl-α-D-mannopyranosyl-(1→3)]-2,4-di-*O*-benzyl-β-D-mannopyranosyl-(1→4)-3,6-di-*O*-benzyl-2-deoxy-2-phthalamido-β-D-glucopyranosyl-(1→4)-3,6-di-*O*-benzyl-2-deoxy-2-phthalamido-β-D-glucopyranoside

Emanuele Attolino, Thomas W. D. F. Rising, Christoph D. Heidecke and Antony J. Fairbanks*

Tetrahedron: Asymmetry *18 (2007) 1721*



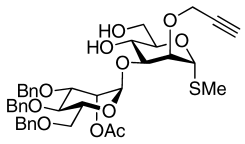
Ee = 100%
$[\alpha]_D^{20} = +122$ (*c* 0.8, $CHCl_3$)
Source of chirality: D-mannose

$C_{72}H_{75}NO_{20}$

Methyl 4,6-*O*-benzylidene-2-*O*-(prop-2-ynyl)-1-thio-α-D-mannopyranoside

Emanuele Attolino, Thomas W. D. F. Rising, Christoph D. Heidecke and Antony J. Fairbanks*

Tetrahedron: Asymmetry *18 (2007) 1721*



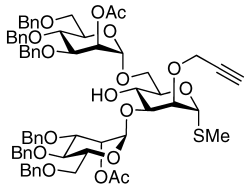
Ee = 100%
$[\alpha]_D^{19} = +35$ (*c* 0.8, $CHCl_3$)
Source of chirality: D-mannose

$C_{39}H_{46}O_{11}S$

Methyl 2-*O*-acetyl-3,4,6-tri-*O*-benzyl-α-D-mannopyranosyl-(1→3)-2-*O*-(prop-2-ynyl)-1-thio-α-D-mannopyranoside

Emanuele Attolino, Thomas W. D. F. Rising, Christoph D. Heidecke and Antony J. Fairbanks*

Tetrahedron: Asymmetry *18 (2007) 1721*



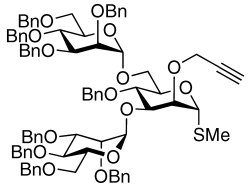
Ee = 100%
$[\alpha]_D^{17} = +58$ (*c* 1.0, $CHCl_3$)
Source of chirality: D-mannose

$C_{68}H_{76}O_{17}S$

Methyl 2-*O*-acetyl-3,4,6-tri-*O*-benzyl-α-D-mannopyranosyl-(1→3)-[2-*O*-acetyl-3,4,6-tri-*O*-benzyl-α-D-mannopyranosyl-(1→6)]-2-*O*-(prop-2-ynyl)-1-thio-α-D-mannopyranoside

Emanuele Attolino, Thomas W. D. F. Rising, Christoph D. Heidecke and Antony J. Fairbanks*

Tetrahedron: Asymmetry *18 (2007) 1721*



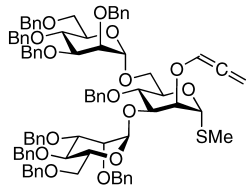
Ee = 100%
$[\alpha]_D^{17} = +50$ (*c* 1.0, $CHCl_3$)
Source of chirality: D-mannose

$C_{85}H_{90}O_{15}S$

Methyl 2,3,4,6-tetra-*O*-benzyl-α-D-mannopyranosyl-(1→3)-[2,3,4,6-tetra-*O*-benzyl-α-D-mannopyranosyl-(1→6)]-4-*O*-benzyl-2-*O*-(prop-2-ynyl)-1-thio-α-D-mannopyranoside

Emanuele Attolino, Thomas W. D. F. Rising, Christoph D. Heidecke and Antony J. Fairbanks*

Tetrahedron: Asymmetry *18 (2007) 1721*



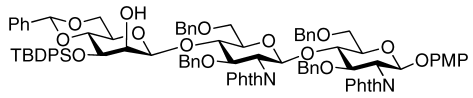
Ee = 100%
$[\alpha]_D^{17} = +52$ (*c* 0.6, $CHCl_3$)
Source of chirality: D-mannose

$C_{85}H_{90}O_{15}S$

Methyl 2,3,4,6-tetra-*O*-benzyl-α-D-mannopyranosyl-(1→3)-[2,3,4,6-tetra-*O*-benzyl-α-D-mannopyranosyl-(1→6)]-4-*O*-benzyl-2-*O*-(allenyl)-1-thio-α-D-mannopyranoside

Emanuele Attolino, Thomas W. D. F. Rising, Christoph D. Heidecke and Antony J. Fairbanks*

Tetrahedron: Asymmetry *18 (2007) 1721*



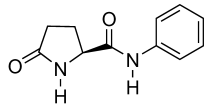
Ee = 100%
$[\alpha]_D^{22} = +44$ (*c* 1.0, $CHCl_3$)
Source of chirality: D-mannose, *N*-acetyl-D-glucosamine

$C_{92}H_{90}N_2O_{19}Si$

p-Methoxyphenyl 4,6-*O*-benzylidene-3-*O*-*tert*-butyldiphenylsilyl-β-D-mannopyranosyl-(1→4)-3,6-di-*O*-benzyl-2-deoxy-2-phthalimido-β-D-glucopyranosyl-(1→4)-3,6-di-*O*-benzyl-2-deoxy-2-phthalimido-β-D-glucopyranoside

Uwe Köhn, Andrea Schramm, Florian Kloß, Helmar Görls, Evelyn Arnold and Ernst Anders*

Tetrahedron: Asymmetry *18 (2007) 1735*



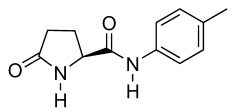
$[\alpha]_D^{20} = +14.1$ (*c* 2.27, DMSO)
Source of chirality: 5-oxo-L-proline
Absolute configuration: (2*S*)

$C_{11}H_{12}N_2O_2$

N-Phenyl-5-oxo-pyrrolidine-(*S*)-2-carboxamide

Uwe Köhn, Andrea Schramm, Florian Kloß, Helmar Görls, Evelyn Arnold and Ernst Anders*

Tetrahedron: Asymmetry *18 (2007) 1735*



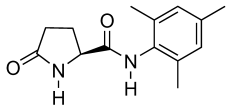
$[\alpha]_D^{rt} = +16.1$ (*c* 2.11, DMSO)
Source of chirality: 5-oxo-L-proline
Absolute configuration: (2*S*)

$C_{12}H_{14}N_2O_2$

N-Tolyl-5-oxo-pyrrolidine-(*S*)-2-carboxamide

Uwe Köhn, Andrea Schramm, Florian Kloß, Helmar Görls, Evelyn Arnold and Ernst Anders*

Tetrahedron: Asymmetry *18 (2007) 1735*



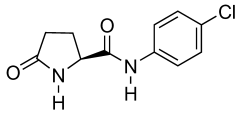
$C_{14}H_{18}N_2O_2$

N-Mesityl-5-oxo-pyrrolidine-(*S*)-2-carboxamide

$[\alpha]_D^{rt} = +23.4$ (*c* 2.22, DMSO)
Source of chirality: 5-oxo-L-proline
Absolute configuration: (2*S*)

Uwe Köhn, Andrea Schramm, Florian Kloß, Helmar Görls, Evelyn Arnold and Ernst Anders*

Tetrahedron: Asymmetry *18 (2007) 1735*



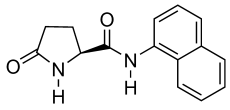
$C_{11}H_{11}N_2O_2Cl$

N-(4-Chlorophenyl)-5-oxo-pyrrolidine-(*S*)-2-carboxamide

$[\alpha]_D^{rt} = +13.8$ (*c* 2.18, DMSO)
Source of chirality: 5-oxo-L-proline
Absolute configuration: (2*S*)

Uwe Köhn, Andrea Schramm, Florian Kloß, Helmar Görls, Evelyn Arnold and Ernst Anders*

Tetrahedron: Asymmetry *18 (2007) 1735*



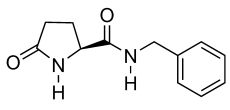
$C_{15}H_{14}N_2O_2$

N-(1-Naphthyl)-5-oxo-pyrrolidine-(*S*)-2-carboxamide

$[\alpha]_D^{rt} = +34.65$ (*c* 2.02, DMSO)
Source of chirality: 5-oxo-L-proline
Absolute configuration: (2*S*)

Uwe Köhn, Andrea Schramm, Florian Kloß, Helmar Görls, Evelyn Arnold and Ernst Anders*

Tetrahedron: Asymmetry *18 (2007) 1735*



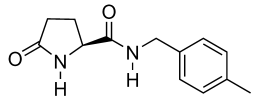
$C_{12}H_{14}N_2O_2$

N-Benzyl-5-oxo-pyrrolidine-(*S*)-2-carboxamide

$[\alpha]_D^{rt} = +13.7$ (*c* 2.04, DMSO)
Source of chirality: 5-oxo-L-proline
Absolute configuration: (2*S*)

Uwe Köhn, Andrea Schramm, Florian Kloß, Helmar Görls, Evelyn Arnold and Ernst Anders*

Tetrahedron: Asymmetry *18 (2007) 1735*



$C_{13}H_{16}N_2O_2$

N-(4-Methylbenzyl)-5-oxo-pyrrolidine-(*S*)-2-carboxamide

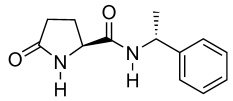
$[\alpha]_D^{rt} = +7.8$ (*c* 2.04, DMSO)

Source of chirality: 5-oxo-L-proline

Absolute configuration: (2*S*)

Uwe Köhn, Andrea Schramm, Florian Kloß, Helmar Görls, Evelyn Arnold and Ernst Anders*

Tetrahedron: Asymmetry *18 (2007) 1735*



$C_{13}H_{16}N_2O_2$

N-(*R*)-1-Phenylethyl-5-oxo-pyrrolidine-(*S*)-2-carboxamide

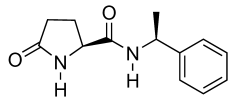
$[\alpha]_D^{rt} = +84.85$ (*c* 1.98, DMSO)

Source of chirality: 5-oxo-L-proline (*R*)-2-phenylethylamine

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

Uwe Köhn, Andrea Schramm, Florian Kloß, Helmar Görls, Evelyn Arnold and Ernst Anders*

Tetrahedron: Asymmetry *18 (2007) 1735*



$C_{13}H_{16}N_2O_2$

N-(*S*)-1-Phenylethyl-5-oxo-pyrrolidine-(*S*)-2-carboxamide

$[\alpha]_D^{rt} = -89.6$ (*c* 2.21, DMSO)

Source of chirality: 5-oxo-L-proline (*S*)-2-phenylethylamine

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

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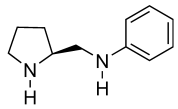
Tetrahedron: Asymmetry *18 (2007) 1735*



$C_{11}H_{16}N_2$

N-(Pyrrolidin-2-ylmethyl)-aniline

$[\alpha]_D^{rt} = +31.0$ (*c* 4.77, $CHCl_3$)

Source of chirality: 5-oxo-L-proline

Absolute configuration: (2*S*)

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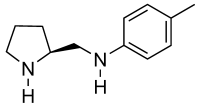
Tetrahedron: Asymmetry *18 (2007) 1735*



$C_{12}H_{18}N_2$

4-Methyl-*N*-(pyrrolidin-2-ylmethyl)-aniline

$[\alpha]_D^{rt} = +29.5$ (*c* 2.85, $CHCl_3$)
Source of chirality: 5-oxo-L-proline
Absolute configuration: (2*S*)

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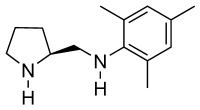
Tetrahedron: Asymmetry *18 (2007) 1735*



$C_{14}H_{22}N_2$

2,4,6-Trimethyl-*N*-(pyrrolidin-2-ylmethyl)-aniline

$[\alpha]_D^{rt} = +23.25$ (*c* 5.85, $CHCl_3$)
Source of chirality: 5-oxo-L-proline
Absolute configuration: (2*S*)

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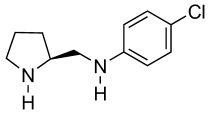
Tetrahedron: Asymmetry *18 (2007) 1735*



$C_{11}H_{15}N_2Cl$

4-Chloro-*N*-(pyrrolidin-2- ylmethyl)-aniline

$[\alpha]_D^{rt} = +27.1$ (*c* 2.58, $CHCl_3$)
Source of chirality: 5-oxo-L-proline
Absolute configuration: (2*S*)

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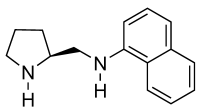
Tetrahedron: Asymmetry *18 (2007) 1735*



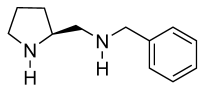
$C_{15}H_{18}N_2$

N-(Pyrrolidin-2-ylmethyl)-naphthalene-1-amine

$[\alpha]_D^{rt} = +52.0$ (*c* 3.27, $CHCl_3$)
Source of chirality: 5-oxo-L-proline
Absolute configuration: (2*S*)

Uwe Köhn, Andrea Schramm, Florian Kloß, Helmar Görls, Evelyn Arnold and Ernst Anders*

Tetrahedron: Asymmetry *18 (2007) 1735*



$C_{12}H_{18}N_2$

Benzyl-(pyrrolidin-2-ylmethyl)-amine

$[\alpha]_D^{rt} = +15.15$ (*c* 5.81, $CHCl_3$)

Source of chirality: 5-oxo-L-proline

Absolute configuration: (2*S*)

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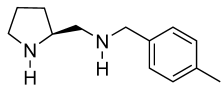
Tetrahedron: Asymmetry *18 (2007) 1735*



$C_{13}H_{21}N_2$

4-Methylbenzyl-(pyrrolidin-(*S*)-2-ylmethyl)-amine

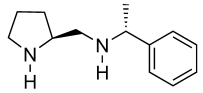
$[\alpha]_D^{rt} = +14.95$ (*c* 3.88, $CHCl_3$)

Source of chirality: 5-oxo-L-proline

Absolute configuration: (2*S*)

Uwe Köhn, Andrea Schramm, Florian Kloß, Helmar Görls, Evelyn Arnold and Ernst Anders*

Tetrahedron: Asymmetry *18 (2007) 1735*



$C_{13}H_{20}N_2$

(*R*)-1-Phenylethyl-(pyrrolidin-(*S*)-2-ylmethyl)-amine

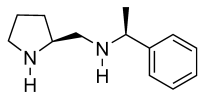
$[\alpha]_D^{rt} = +27.1$ (*c* 2.58, $CHCl_3$)

Source of chirality: 5-oxo-L-proline (*R*)-2-phenylethylamine

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

Uwe Köhn, Andrea Schramm, Florian Kloß, Helmar Görls, Evelyn Arnold and Ernst Anders*

Tetrahedron: Asymmetry *18 (2007) 1735*



$C_{13}H_{20}N_2$

(*S*)-1-Phenylethyl-(pyrrolidin-(*S*)-2-ylmethyl)-amine

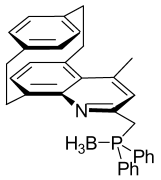
$[\alpha]_D^{rt} = -15.3$ (*c* 3.40, $CHCl_3$)

Source of chirality: 5-oxo-L-proline (*S*)-2-phenylethylamine

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

Renzo Ruzziconi,* Claudio Santi and Sara Spizzichino

Tetrahedron: Asymmetry *18 (2007) 1742*

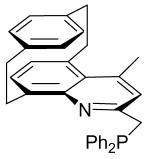


Ee = 100%
$[\alpha]_D^{20} = +6.7$ (*c* 0.67, CH_2Cl_2)
Source of chirality: chiral building block
Absolute configuration: (R_p)

$C_{33}H_{33}BNP$
(*R*)-2-[(Diphenylphosphino)methyl]-4-methyl[2]paracyclo[2](5,8)quinolinophane borane complex

Renzo Ruzziconi,* Claudio Santi and Sara Spizzichino

Tetrahedron: Asymmetry *18 (2007) 1742*

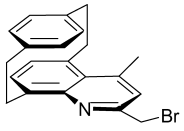


Ee = 100%
$[\alpha]_D^{20} = +3.1$ (*c* 4.4, CH_2Cl_2)
Source of chirality: chiral building block
Absolute configuration: (R_p)

$C_{33}H_{30}NP$
(*R*)-2-[(Diphenylphosphino)methyl]-4-methyl[2]paracyclo[2](5,8)quinolinophane

Renzo Ruzziconi,* Claudio Santi and Sara Spizzichino

Tetrahedron: Asymmetry *18 (2007) 1742*



Ee = 100%
$[\alpha]_D^{25} = -11.5$ (*c* 0.5, $CHCl_3$)
Source of chirality: chiral building block
Absolute configuration: (R_p)

$C_{21}H_{20}BrN$
(*R*)-2-(Bromomethyl)-4-methyl[2]paracyclo[2](5,8)quinolinophane

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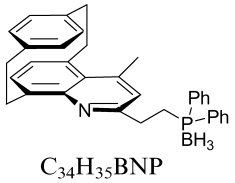
Tetrahedron: Asymmetry *18 (2007) 1742*

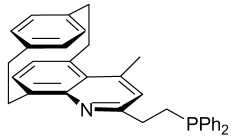


Ee = 100%
$[\alpha]_D^{20} = +37$ (*c* 0.48, $CHCl_3$)
Source of chirality: chiral building block
Absolute configuration: (R_p)

$C_{34}H_{35}BNP$
(*R*)-2-[2-(Diphenylphosphino)ethyl]-4-methyl[2]paracyclo[2](5,8)quinolinophane borane complex

Renzo Ruzziconi,* Claudio Santi and Sara Spizzichino

Tetrahedron: Asymmetry *18 (2007) 1742*



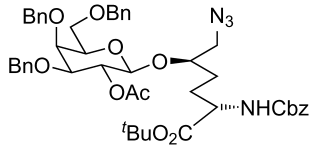
$C_{34}H_{32}NP$

(*R*)-2-[2-(Diphenylphosphino)ethyl]-4-methyl[2]paracyclo[2](5,8)quinolinophane

Ee = 100%
$[\alpha]_D^{29} = +17$ (*c* 0.51, $CHCl_3$)
Source of chirality: chiral building block
Absolute configuration: (R_p)

Pietro Allevi,* Raffaele Colombo, Elios Giannini and Mario Anastasia

Tetrahedron: Asymmetry *18 (2007) 1750*



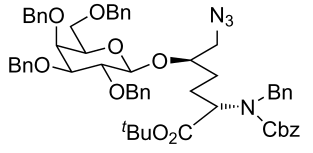
$C_{47}H_{56}N_4O_{11}$

tert-Butyl (2*S*,5*R*)-6-azido-2-benzyloxycarbonylamino-5-(3,4,6-tri-*O*-benzyl-2-*O*-acetyl-β-D-galactopyranosyloxy)hexanoate

$[\alpha]_D^{20} = +9.3$ (*c* 1, CH_2Cl_2)
Source of chirality: L-glutamic acid and D-galactose
Absolute configuration: (2*S*,5*R*)

Pietro Allevi,* Raffaele Colombo, Elios Giannini and Mario Anastasia

Tetrahedron: Asymmetry *18 (2007) 1750*



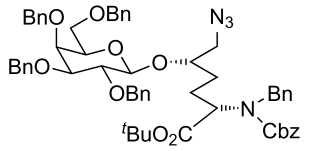
$C_{59}H_{66}IN_4O_{10}$

tert-Butyl (2*S*,5*R*)-6-azido-2-*N*-benzyl-*N*-benzyloxycarbonylamino-5-(2,3,4,6-tetra-*O*-benzyl-β-D-galactopyranosyloxy)hexanoate

$[\alpha]_D^{20} = -2.4$ (*c* 1, CH_2Cl_2)
Source of chirality: L-glutamic acid and D-galactose
Absolute configuration: (2*S*,5*S*)

Pietro Allevi,* Raffaele Colombo, Elios Giannini and Mario Anastasia

Tetrahedron: Asymmetry *18 (2007) 1750*



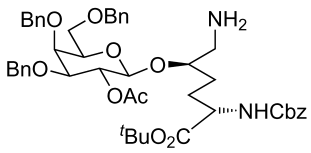
$C_{59}H_{66}IN_4O_{10}$

tert-Butyl (2*S*,5*S*)-6-azido-2-*N*-benzyl-*N*-benzyloxycarbonylamino-5-(2,3,4,6-tetra-*O*-benzyl-β-D-galactopyranosyloxy)hexanoate

$[\alpha]_D^{20} = +7.0$ (*c* 1, CH_2Cl_2)
Source of chirality: L-glutamic acid and D-galactose
Absolute configuration: (2*S*,5*S*)

Pietro Allevi,* Raffaele Colombo, Elios Giannini and Mario Anastasia

Tetrahedron: Asymmetry *18 (2007) 1750*



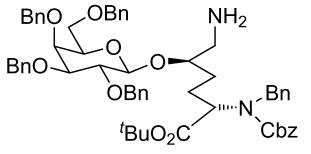
$[\alpha]_D^{20} = +5.2$ (c 1, CH_2Cl_2)
Source of chirality: L-glutamic acid and D-galactose
Absolute configuration: (2*S*,5*R*)

$C_{47}H_{58}IN_2O_{11}$

tert-Butyl (2*S*,5*R*)-6-amino-2-benzyloxycarbonylamino-5-(3,4,6-tri-*O*-benzyl-2-*O*-acetyl-β-D-galactopyranosyloxy)hexanoate

Pietro Allevi,* Raffaele Colombo, Elios Giannini and Mario Anastasia

Tetrahedron: Asymmetry *18 (2007) 1750*



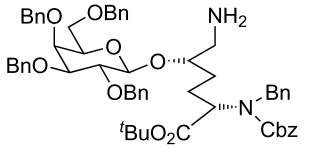
$[\alpha]_D^{20} = -0.7$ (c 1, CH_2Cl_2)
Source of chirality: L-glutamic acid and D-galactose
Absolute configuration: (2*S*,5*R*)

$C_{59}H_{68}IN_2O_{10}$

tert-Butyl (2*S*,5*R*)-6-amino-2-*N*-benzyl-*N*-benzyloxycarbonylamino-5-(2,3,4,6-tetra-*O*-benzyl-β-D-galactopyranosyloxy)hexanoate

Pietro Allevi,* Raffaele Colombo, Elios Giannini and Mario Anastasia

Tetrahedron: Asymmetry *18 (2007) 1750*



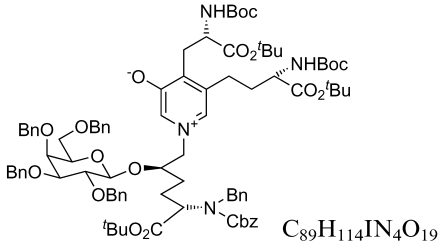
$[\alpha]_D^{20} = +4.8$ (c 1, CH_2Cl_2)
Source of chirality: L-glutamic acid and D-galactose
Absolute configuration: (2*S*,5*S*)

$C_{59}H_{68}IN_2O_{10}$

tert-Butyl (2*S*,5*S*)-6-amino-2-*N*-benzyl-*N*-benzyloxycarbonylamino-5-(2,3,4,6-tetra-*O*-benzyl-β-D-galactopyranosyloxy)hexanoate

Pietro Allevi,* Raffaele Colombo, Elios Giannini and Mario Anastasia

Tetrahedron: Asymmetry *18 (2007) 1750*



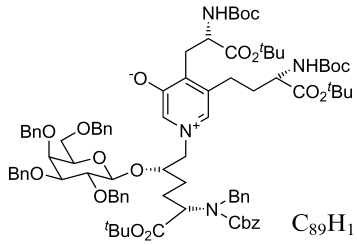
$[\alpha]_D^{20} = -0.7$ (c 1, CH_2Cl_2)
Source of chirality: L-glutamic acid and D-galactose
Absolute configuration: (2′*S*,3″*S*,2‴*R*,5‴*S*)

$C_{89}H_{114}IN_4O_{19}$

4-[(*S*)-2-*tert*-Butyloxycarbonylamino-2-*tert*-butyloxycarbonylethyl]-5-[(*S*)-3-*tert*-butyloxycarbonylamino-3-*tert*-butyloxycarbonyl-propyl]-1-[(2*R*,5*S*)-5-*N*-benzyl-*N*-benzyloxycarbonylamino-5-*tert*-butyloxycarbonyl-2-(3,4,6-tri-*O*-benzyl-β-D-galactopyranosyl-oxy)pentyl]-3-pyridiniumolate

Pietro Allevi,* Raffaele Colombo, Elios Giannini and Mario Anastasia

Tetrahedron: Asymmetry *18 (2007) 1750*



$C_{89}H_{114}IN_4O_{19}$

$[\alpha]_D^{20} = +12.2$ (*c* 1, CH_2Cl_2)

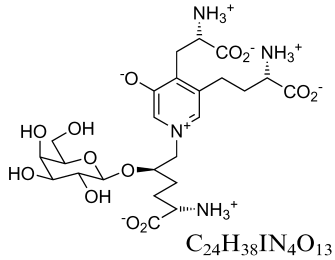
Source of chirality: L-glutamic acid and D-galactose

Absolute configuration: (2′*S*,3″*S*,2‴*S*,5‴*S*)

4-[(*S*)-2-*tert*-Butyloxycarbonylamino-2-*tert*-butyloxycarbonylethyl]-5-[(*S*)-3-*tert*-butyloxycarbonylamino-3-*tert*-butyloxycarbonyl-propyl]-1-[(2*S*,5*S*)-5-*N*-benzyl-*N*-benzyloxycarbonylamino-5-*tert*-butyloxycarbonyl-2-(3,4,6-tri-*O*-benzyl-β-D-galactopyranosyl-oxy)pentyl]-3-pyridiniumolate

Pietro Allevi,* Raffaele Colombo, Elios Giannini and Mario Anastasia

Tetrahedron: Asymmetry *18 (2007) 1750*



$C_{24}H_{38}IN_4O_{13}$

$[\alpha]_D^{20} = -4.4$ (*c* 0.5, H_2O)

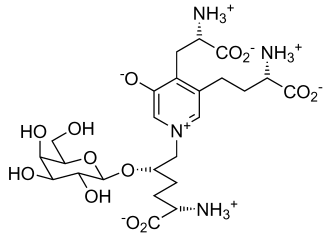
Source of chirality: L-glutamic acid and D-galactose

Absolute configuration: (2′*S*,3″*S*,2‴*R*,5‴*S*)

4-[(*S*)-2-Amino-2-carboxyethyl]-5-[(*S*)-3amino-3-carboxypropyl]-1-[(2*R*,5*S*)-5-amino-5-carboxy-2-(β-D-galactopyranosyloxy)pent-yl]-3-pyridiniumolate

Pietro Allevi,* Raffaele Colombo, Elios Giannini and Mario Anastasia

Tetrahedron: Asymmetry *18 (2007) 1750*



$C_{24}H_{38}IN_4O_{13}$

$[\alpha]_D^{20} = +3.8$ (*c* 0.5, H_2O)

Source of chirality: L-glutamic acid and D-galactose

Absolute configuration: (2′*S*,3″*S*,2‴*S*,5‴*S*)

4-[(*S*)-2-Amino-2-carboxyethyl]-5-[(*S*)-3amino-3-carboxypropyl]-1-[(2*S*,5*S*)-5-amino-5-carboxy-2-(β-D-galactopyranosyloxy)pent-yl]-3-pyridiniumolate