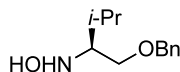


Samir K. Patel, Sandrine Py, Shashi U. Pandya, Pierre Y. Chavant and Yannick Vallée*

Tetrahedron: Asymmetry 14 (2003) 525



(*S*)-*N*-Hydroxy-1-benzyloxy-3-methyl-2-butanamine

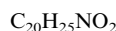
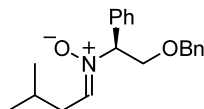
$[\alpha]_{\text{D}}^{20} = +18$ (*c* 1.06, CHCl_3)

Source of chirality: (*S*)-valinol

Absolute configuration: (*S*)

Samir K. Patel, Sandrine Py, Shashi U. Pandya, Pierre Y. Chavant and Yannick Vallée*

Tetrahedron: Asymmetry 14 (2003) 525



(*S*)-2-(Benzyloxy-1-phenyl-ethyl)-(3-methyl-butylidene)-amine *N*-oxide

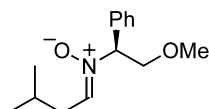
$[\alpha]_{\text{D}}^{20} = -7$ (*c* 1.60, CH_2Cl_2)

Source of chirality: (*S*)-phenylglycinol

Absolute configuration: (*S*)

Samir K. Patel, Sandrine Py, Shashi U. Pandya, Pierre Y. Chavant and Yannick Vallée*

Tetrahedron: Asymmetry 14 (2003) 525



(*S*)-2-(Methoxy-1-phenyl-ethyl)-(3-methyl-butylidene)-amine *N*-oxide

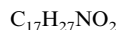
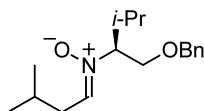
$[\alpha]_{\text{D}}^{20} = +14$ (*c* 0.93, CH_2Cl_2)

Source of chirality: (*S*)-phenylglycinol

Absolute configuration: (*S*)

Samir K. Patel, Sandrine Py, Shashi U. Pandya, Pierre Y. Chavant and Yannick Vallée*

Tetrahedron: Asymmetry 14 (2003) 525



(*S*)-(1-Benzyloxy-3-methyl-2-butyl)-(3-methyl-butylidene)-amine *N*-oxide

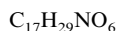
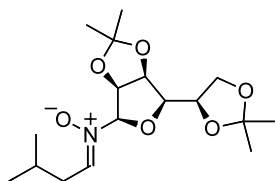
$[\alpha]_{\text{D}}^{20} = -2.5$ (*c* 0.97, CHCl_3)

Source of chirality: (*S*)-valinol

Absolute configuration: (*S*)

Samir K. Patel, Sandrine Py, Shashi U. Pandya, Pierre Y. Chavant and Yannick Vallée*

Tetrahedron: Asymmetry 14 (2003) 525



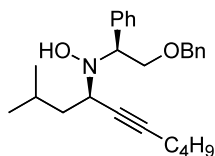
[2,3:5,6-Di-O-isopropylidene- α -(D)-mannofuranosyl]-(3-methyl-butylidene)-amine *N*-oxide

$[\alpha]_D^{20} = +44$ (*c* 1.05, $CHCl_3$)

Source of chirality: (D)-mannose

Samir K. Patel, Sandrine Py, Shashi U. Pandya, Pierre Y. Chavant and Yannick Vallée*

Tetrahedron: Asymmetry 14 (2003) 525



N-[(*S*)-(2-Benzyloxy-1-phenyl-ethyl)]-*N*-[(*R*)-1-(2-methyl-propyl)-hept-2-ynyl]-hydroxylamine

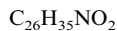
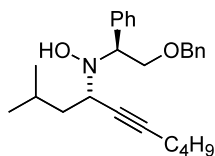
$[\alpha]_D^{20} = +86$ (*c* 1.08, $CHCl_3$)

Source of chirality: (*S*)-phenylglycinol

Absolute configuration: (*S,R*)

Samir K. Patel, Sandrine Py, Shashi U. Pandya, Pierre Y. Chavant and Yannick Vallée*

Tetrahedron: Asymmetry 14 (2003) 525



N-[(*S*)-(2-Benzyloxy-1-phenyl-ethyl)]-*N*-[(*S*)-1-(2-methyl-propyl)-hept-2-ynyl]-hydroxylamine

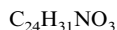
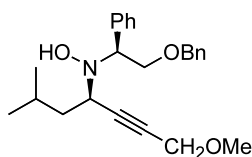
$[\alpha]_D^{20} = +44$ (*c* 0.97, $CHCl_3$)

Source of chirality: (*S*)-phenylglycinol

Absolute configuration: (*S,S*)

Samir K. Patel, Sandrine Py, Shashi U. Pandya, Pierre Y. Chavant and Yannick Vallée*

Tetrahedron: Asymmetry 14 (2003) 525



N-[(*S*)-(2-Benzyloxy-1-phenyl-ethyl)]-*N*-[(*R*)-1-(2-methyl-propyl)-4-methoxy-but-2-ynyl]-hydroxylamine

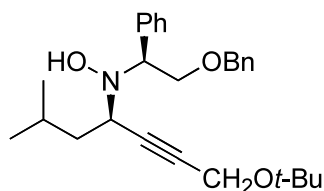
$[\alpha]_D^{20} = +117$ (*c* 1.39, $CHCl_3$)

Source of chirality: (*S*)-phenylglycinol

Absolute configuration: (*S,R*)

Samir K. Patel, Sandrine Py, Shashi U. Pandya, Pierre Y. Chavant and Yannick Vallée*

Tetrahedron: Asymmetry 14 (2003) 525



$C_{27}H_{37}NO_3$

N-[(*S*)-(2-Benzyloxy-1-phenyl-ethyl)]-*N*-[(*R*)-1-(2-methyl-propyl)-4-*t*-butoxy-but-2-ynyl]-hydroxylamine

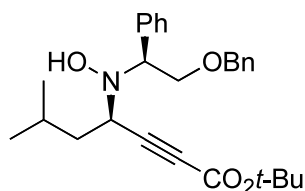
$[\alpha]_D^{20} = +110$ (*c* 0.81, $CHCl_3$)

Source of chirality: (*S*)-phenylglycinol

Absolute configuration: (*S,R*)

Samir K. Patel, Sandrine Py, Shashi U. Pandya, Pierre Y. Chavant and Yannick Vallée*

Tetrahedron: Asymmetry 14 (2003) 525



$C_{27}H_{35}NO_4$

(4*R*)-4-[*N*-[(2'*S*)-(2'-Benzyloxy-1'-phenyl-ethyl)]-*N*-hydroxy-amino]-6-methyl-but-2-ynoic acid *t*-butyl ester

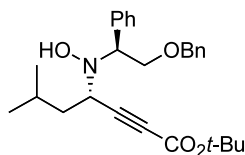
$[\alpha]_D^{20} = +10$ (*c* 1.65, $CHCl_3$)

Source of chirality: (*S*)-phenylglycinol

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

Samir K. Patel, Sandrine Py, Shashi U. Pandya, Pierre Y. Chavant and Yannick Vallée*

Tetrahedron: Asymmetry 14 (2003) 525



$C_{27}H_{35}NO_4$

(4*S*)-4-[*N*-[(2'*S*)-(2'-Benzyloxy-1'-phenyl-ethyl)]-*N*-hydroxy-amino]-6-methyl-but-2-ynoic acid *t*-butyl ester

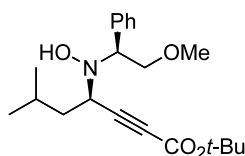
$[\alpha]_D^{20} = +5$ (*c* 1.25, $CHCl_3$)

Source of chirality: (*S*)-phenylglycinol

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

Samir K. Patel, Sandrine Py, Shashi U. Pandya, Pierre Y. Chavant and Yannick Vallée*

Tetrahedron: Asymmetry 14 (2003) 525



$C_{21}H_{31}NO_4$

(4*R*)-4-[*N*-[(2'*S*)-(2'-Methoxy-1'-phenyl-ethyl)]-*N*-hydroxy-amino]-6-methyl-but-2-ynoic acid *t*-butyl ester

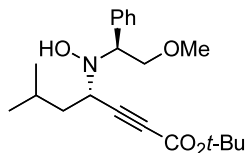
$[\alpha]_D^{20} = +155$ (*c* 1.29, $CHCl_3$)

Source of chirality: (*S*)-phenylglycinol

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

Samir K. Patel, Sandrine Py, Shashi U. Pandya, Pierre Y. Chavant and Yannick Vallée*

Tetrahedron: Asymmetry 14 (2003) 525



$C_{21}H_{31}NO_4$

(4*S*)-4-[*N*-[(2'*S*)-(2'-Methoxy-1'-phenyl-ethyl)-*N*-hydroxy-amino]-6-methyl-but-2-ynoic acid *t*-butyl ester

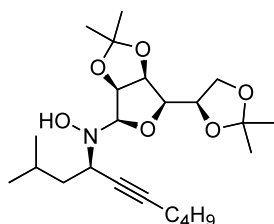
$[\alpha]_D^{20} = +106$ (*c* 1.13, $CHCl_3$)

Source of chirality: (*S*)-phenylglycinol

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

Samir K. Patel, Sandrine Py, Shashi U. Pandya, Pierre Y. Chavant and Yannick Vallée*

Tetrahedron: Asymmetry 14 (2003) 525



$C_{23}H_{39}NO_6$

4(*R*)-[*N*-(2,3:5,6-Di-*O*-isopropyliden- α -D-mannofuranosyl)-*N*-hydroxy-amino]-2-methyl-dec-5-yne

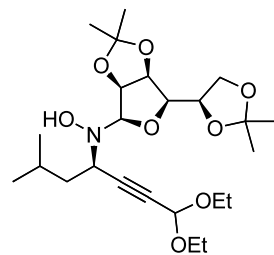
$[\alpha]_D^{20} = +96$ (*c* 1.17, $CHCl_3$)

Source of chirality: (D)-mannose

Absolute configuration: (4*R*)

Samir K. Patel, Sandrine Py, Shashi U. Pandya, Pierre Y. Chavant and Yannick Vallée*

Tetrahedron: Asymmetry 14 (2003) 525



$C_{24}H_{41}NO_8$

4(*R*)-[*N*-(2,3:5,6-Di-*O*-isopropylidene- α -D-mannofuranosyl)-*N*-hydroxy-amino]-6-methyl-hept-2-ynal diethyl acetal

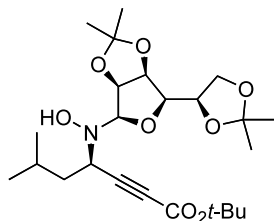
$[\alpha]_D^{20} = +89$ (*c* 1.56, $CHCl_3$)

Source of chirality: (D)-mannose

Absolute configuration: (4*R*)

Samir K. Patel, Sandrine Py, Shashi U. Pandya, Pierre Y. Chavant and Yannick Vallée*

Tetrahedron: Asymmetry 14 (2003) 525



$C_{24}H_{39}NO_8$

4(*R*)-[*N*-(2,3:5,6-Di-*O*-isopropylidene- α -D-mannofuranosyl)-*N*-hydroxy-amino]-6-methyl-hept-2-ynoic acid *t*-butyl ester

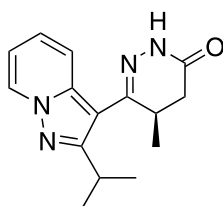
$[\alpha]_D^{20} = +111$ (*c* 1.12, $CHCl_3$)

Source of chirality: (D)-mannose

Absolute configuration: (4*R*)

Noriyuki Yoshida, Masahiro Aono, Takeshi Tsubuki,
Katsuya Awano and Tomoshige Kobayashi*

Tetrahedron: Asymmetry 14 (2003) 529



$C_{15}H_{18}N_4O$

(*R*)-4,5-Dihydro-6-(2-isopropylpyrazolo[1,5-*a*]pyridin-3-yl)-5-methylpyridazin-3(2*H*)-one

Ee = 98%

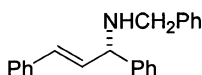
$[\alpha]_D^{24} = -185$ (*c* 1.07, $CHCl_3$)

Source of chirality: lipase-catalyzed hydrolysis

Absolute configuration: 5*R*

Tetsuo Ohta,* Hiroyuki Sasayama, Osakazu Nakajima,
Nobukazu Kurahashi, Takeshi Fujii and Isao Furukawa

Tetrahedron: Asymmetry 14 (2003) 537



$C_{22}H_{21}N_1$

(1*R*,2*E*)-*N*-Benzyl-1,3-diphenylprop-2-enylamine

84% *ee*, determined by HPLC

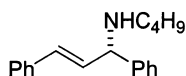
$[\alpha]_D^{25} = +21.0$ (*c* 1.4, $CHCl_3$)

Source of chirality: enantioselective substitution

Absolute configuration: *S* (by optical rotation value)

Tetsuo Ohta,* Hiroyuki Sasayama, Osakazu Nakajima,
Nobukazu Kurahashi, Takeshi Fujii and Isao Furukawa

Tetrahedron: Asymmetry 14 (2003) 537



$C_{19}H_{23}N_1$

(*E*)-*N*-Butyl-1,3-diphenylprop-2-enylamine

81% *ee*, determined by HPLC

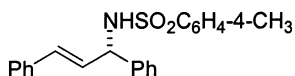
$[\alpha]_D^{25} = -15.3$ (*c* 1.5, $CHCl_3$)

Source of chirality: enantioselective substitution

Absolute configuration: *S* (by chemical correlation)

Tetsuo Ohta,* Hiroyuki Sasayama, Osakazu Nakajima,
Nobukazu Kurahashi, Takeshi Fujii and Isao Furukawa

Tetrahedron: Asymmetry 14 (2003) 537



$C_{22}H_{21}N_1O_2S_1$

(*E*)-*N*-(1,3-Diphenylprop-2-enyl)-4-methylbenzenesulfonamide

63% *ee*, determined by HPLC

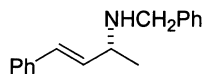
$[\alpha]_D^{25} = -7.0$ (*c* 1.5, $CHCl_3$)

Source of chirality: enantioselective substitution

Absolute configuration: *S* (by chemical correlation)

Tetsuo Ohta,* Hiroyuki Sasayama, Osakazu Nakajima,
Nobukazu Kurahashi, Takeshi Fujii and Isao Furukawa

Tetrahedron: Asymmetry 14 (2003) 537



$C_{17}H_{19}N$

(*E*)-*N*-Benzyl-1-phenylbut-1-en-3-ylamine

5% *ee*, determined by HPLC

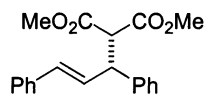
$[\alpha]_D^{25} = +1.3$ (*c* 1.5, $CHCl_3$)

Source of chirality: enantioselective substitution

Absolute configuration: *S* (by chemical correlation)

Tetsuo Ohta,* Hiroyuki Sasayama, Osakazu Nakajima,
Nobukazu Kurahashi, Takeshi Fujii and Isao Furukawa

Tetrahedron: Asymmetry 14 (2003) 537



$C_{20}H_{20}O_4$

(1*R*,2*E*)-Dimethyl 1,3-diphenylprop-2-enylpropanedioate

95% *ee*, determined by HPLC

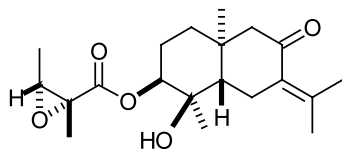
$[\alpha]_D^{25} = +17.4$ (*c* 1.1, EtOH)

Source of chirality: enantioselective substitution

Absolute configuration: *R* (by optical rotation value)

J. Martín Torres-Valencia,* Dora L. Quintero-Mogica,
Guadalupe I. León, Oscar R. Suárez-Castillo,
J. Roberto Villagómez-Ibarra, Emma Maldonado,
Carlos M. Cerda-García-Rojas and Pedro Joseph-Nathan

Tetrahedron: Asymmetry 14 (2003) 543



$C_{20}H_{30}O_5$

3-*O*-[2,3-Epoxy-2-methylbutyroyl]cuahtemone

E.e. = 100%

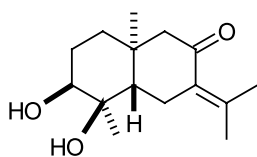
$[\alpha]_D^{20} = +120$ (*c* 0.1, $CHCl_3$)

Source of chirality: natural product from *Epaltes mexicana* Less

Absolute configuration: 3*S*,4*R*,5*S*,10*S*, 2'*R*,3'*R*

J. Martín Torres-Valencia,* Dora L. Quintero-Mogica,
Guadalupe I. León, Oscar R. Suárez-Castillo,
J. Roberto Villagómez-Ibarra, Emma Maldonado,
Carlos M. Cerda-García-Rojas and Pedro Joseph-Nathan

Tetrahedron: Asymmetry 14 (2003) 543



$C_{15}H_{24}O_3$

Cuahtemone

E.e. = 100%

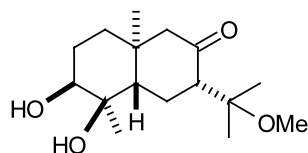
$[\alpha]_D^{20} = +59.6$ (*c* 0.1, $CHCl_3$)

Source of chirality: natural 3-*O*-[2,3-epoxy-2-methylbutyroyl]cuahtemone

Absolute configuration: 3*S*,4*R*,5*S*,10*S*

J. Martín Torres-Valencia,* Dora L. Quintero-Mogica,
Guadalupe I. León, Oscar R. Suárez-Castillo,
J. Roberto Villagómez-Ibarra, Emma Maldonado,
Carlos M. Cerda-García-Rojas and Pedro Joseph-Nathan

Tetrahedron: Asymmetry 14 (2003) 543



11-Methoxy-7,11-dihydrocuauhtemone

E.e. = 100%

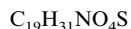
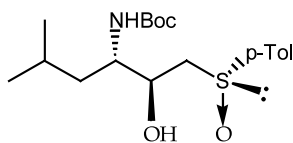
$[\alpha]_D^{25} = +62$ (c 0.29, $CHCl_3$)

Source of chirality: natural 3-*O*-[2,3-epoxy-2-methylbutyroyl]cuauhtemone

Absolute configuration: 3*S*,4*R*,5*S*,7*S*,10*S*

Francisco Yuste,* Angel Díaz, Benjamín Ortiz,
Rubén Sánchez-Obregón, Fernando Walls and José L. García Ruano*

Tetrahedron: Asymmetry 14 (2003) 549



(2*S*,3*S*,*R_S*)-*N*-(*tert*-Butoxycarbonyl)-3-amino-5-methyl-1-[(4-methylphenyl)sulfinyl]-2-hexanol

Mp = 95°C

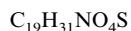
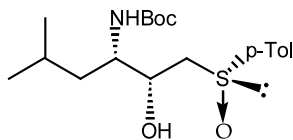
$[\alpha]_D = +105.0$ (c 1, chloroform)

Source of chirality: diastereoselective synthesis

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

Francisco Yuste,* Angel Díaz, Benjamín Ortiz,
Rubén Sánchez-Obregón, Fernando Walls and José L. García Ruano*

Tetrahedron: Asymmetry 14 (2003) 549



(2*R*,3*S*,*R_S*)-*N*-(*tert*-Butoxycarbonyl)-3-amino-5-methyl-1-[(4-methylphenyl)sulfinyl]-2-hexanol

Mp = 115°C

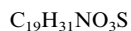
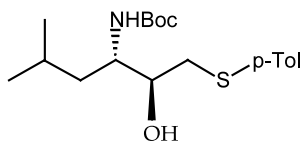
$[\alpha]_D = +111.5$ (c 1, chloroform)

Source of chirality: diastereoselective synthesis

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

Francisco Yuste,* Angel Díaz, Benjamín Ortiz,
Rubén Sánchez-Obregón, Fernando Walls and José L. García Ruano*

Tetrahedron: Asymmetry 14 (2003) 549



(2*S*,3*S*)-*N*-(*tert*-Butoxycarbonyl)-3-amino-5-methyl-1-[(4-methylphenyl)sulfinyl]-2-hexanol

Mp = 97–99°C

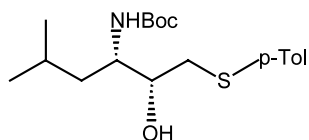
$[\alpha]_D = -24.7$ (c 1, chloroform)

Source of chirality: diastereoselective synthesis

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

Francisco Yuste,* Angel Díaz, Benjamín Ortiz,
Rubén Sánchez-Obregón, Fernando Walls and José L. García Ruano*

Tetrahedron: Asymmetry 14 (2003) 549



$C_{19}H_{31}NO_3S$

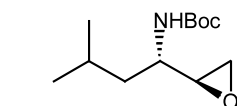
(2*R*,3*S*)-*N*-(*tert*-Butoxycarbonyl)-3-amino-5-methyl-1-[(4-methylphenyl)sulfonyl]-2-hexanol

Oil

$[\alpha]_D = -30.2$ (*c* 1, chloroform)

Source of chirality: diastereoselective synthesis

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



$C_{12}H_{23}NO_3$

(*S*)-1-[(*S*)-1-(*tert*-Butoxycarbonylamino)-3-methylbutyl]oxirane

Tetrahedron: Asymmetry 14 (2003) 549

Mp=45–47°C

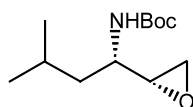
$[\alpha]_D = -27.6$ (*c* 1, chloroform)

Source of chirality: diastereoselective synthesis

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

Francisco Yuste,* Angel Díaz, Benjamín Ortiz,
Rubén Sánchez-Obregón, Fernando Walls and José L. García Ruano*

Tetrahedron: Asymmetry 14 (2003) 549



$C_{12}H_{23}NO_3$

(*R*)-1-[(*S*)-1-(*tert*-Butoxycarbonylamino)-3-methylbutyl]oxirane

Oil

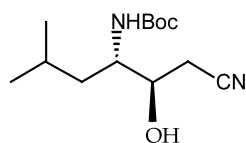
$[\alpha]_D = -43.1$ (*c* 1, chloroform)

Source of chirality: diastereoselective synthesis

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

Francisco Yuste,* Angel Díaz, Benjamín Ortiz,
Rubén Sánchez-Obregón, Fernando Walls and José L. García Ruano*

Tetrahedron: Asymmetry 14 (2003) 549



$C_{13}H_{24}N_2O_3$

(3*R*,4*S*)-4-(*tert*-Butoxycarbonylamino)-3-hydroxy-6-methylheptanenitrile

Mp=95–97°C

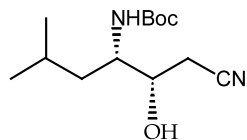
$[\alpha]_D = -34.1$ (*c* 1, chloroform)

Source of chirality: diastereoselective synthesis

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

Francisco Yuste,* Angel Díaz, Benjamín Ortiz,
Rubén Sánchez-Obregón, Fernando Walls and José L. García Ruano*

Tetrahedron: Asymmetry 14 (2003) 549



$C_{13}H_{24}N_2O_3$

(3*S*,4*S*)-4-(*tert*-Butoxycarbonylamino)-3-hydroxy-6-methylheptanenitrile

Oil

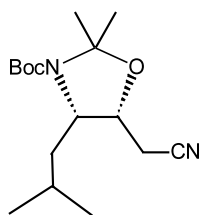
$[\alpha]_D = -35.0$ (*c* 1, chloroform)

Source of chirality: diastereoselective synthesis

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

Francisco Yuste,* Angel Díaz, Benjamín Ortiz,
Rubén Sánchez-Obregón, Fernando Walls and José L. García Ruano*

Tetrahedron: Asymmetry 14 (2003) 549



$C_{16}H_{28}N_2O_3$

(4*S*,5*R*)-3-(*tert*-Butoxycarbonyl)-5-cyanomethyl-4-isobutyl-2,2-dimethyl-1,3-oxazolidine

Oil

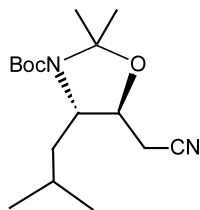
$[\alpha]_D = -2.0$ (*c* 1, chloroform)

Source of chirality: diastereoselective synthesis

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

Francisco Yuste,* Angel Díaz, Benjamín Ortiz,
Rubén Sánchez-Obregón, Fernando Walls and José L. García Ruano*

Tetrahedron: Asymmetry 14 (2003) 549



$C_{16}H_{28}N_2O_3$

(4*S*,5*S*)-3-(*tert*-Butoxycarbonyl)-5-cyanomethyl-4-isobutyl-2,2-dimethyl-1,3-oxazolidine

Oil

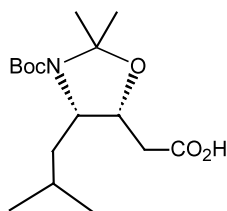
$[\alpha]_D = +14.0$ (*c* 1, chloroform)

Source of chirality: diastereoselective synthesis

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

Francisco Yuste,* Angel Díaz, Benjamín Ortiz,
Rubén Sánchez-Obregón, Fernando Walls and José L. García Ruano*

Tetrahedron: Asymmetry 14 (2003) 549



$C_{16}H_{29}NO_5$

(4*S*,5*R*)-3-(*tert*-Butoxycarbonyl)-5-carboxymethyl-4-isobutyl-2,2-dimethyl-1,3-oxazolidine

Mp = 95–97°C

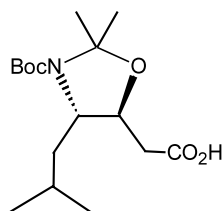
$[\alpha]_D = -6.8$ (*c* 1, chloroform)

Source of chirality: diastereoselective synthesis

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

Francisco Yuste,* Angel Díaz, Benjamín Ortiz,
Rubén Sánchez-Obregón, Fernando Walls and José L. García Ruano*

Tetrahedron: Asymmetry 14 (2003) 549



$C_{16}H_{29}NO_5$

(4*S*,5*S*)-3-(*tert*-Butoxycarbonyl)-5-carboxymethyl-4-isobutyl-2,2-dimethyl-1,3-oxazolidine

Mp = 130–132°C

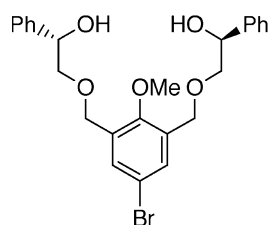
$[\alpha]_D = -2.2$ (*c* 1, chloroform)

Source of chirality: diastereoselective synthesis

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

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



$C_{25}H_{27}BrO_5$

5-Bromo-1,3-bis[(4*S*)-4-hydroxy-2-oxabutyl]-2-methoxybenzene

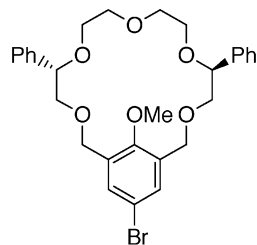
$[\alpha]_D^{25} = +25.1$ (*c* 1.03, $CHCl_3$)

Source of chirality: (*S*)-(+)-mandelic acid

Absolute configuration: *S*,*S*

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



$C_{29}H_{33}BrO_6$

(5*S*,13*S*)-19-Bromo-21-methoxy-5,13-diphenyl-3,6,9,12,15-pentaoxabicyclo[15.3.1]henicosa-1(20),17(21),18-triene

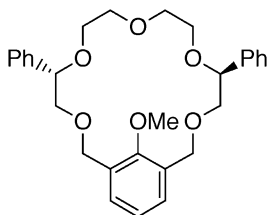
$[\alpha]_D^{28} = +92.3$ (*c* 1.24, $CHCl_3$)

Source of chirality: (*S*)-(+)-mandelic acid

Absolute configuration: 5*S*,13*S*

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



$C_{29}H_{34}O_6$

(5*S*,13*S*)-21-Methoxy-5,13-diphenyl-3,6,9,12,15-pentaoxabicyclo[15.3.1]henicosa-1(20),17(21),18-triene

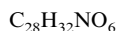
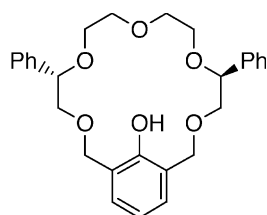
$[\alpha]_D^{24} = +147.1$ (*c* 0.54, $CHCl_3$)

Source of chirality: (*S*)-(+)-mandelic acid

Absolute configuration: 5*S*,13*S*

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



(5*S*,13*S*)-21-Hydroxy-5,13-diphenyl-3,6,9,12,15-pentaoxabicyclo[15.3.1]henicosa-1(20),17(21),18-triene

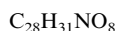
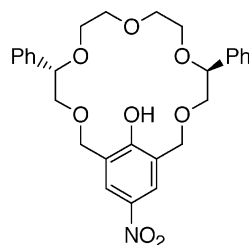
$$[\alpha]_D^{21} = +117.1 \text{ (} c \text{ 0.34, CHCl}_3 \text{)}$$

Source of chirality: (*S*)-(+)-mandelic acid

Absolute configuration: 5*S*,13*S*

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



(5*S*,13*S*)-21-Hydroxy-19-nitro-5,13-diphenyl-3,6,9,12,15-pentaoxabicyclo[15.3.1]henicosa-1(20),17(21),18-triene

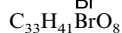
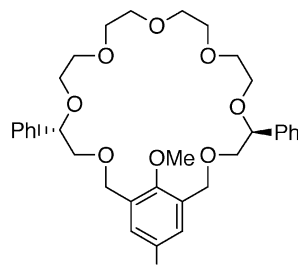
$$[\alpha]_D^{21} = +97.2 \text{ (} c \text{ 0.61, CHCl}_3 \text{)}$$

Source of chirality: (*S*)-(+)-mandelic acid

Absolute configuration: 5*S*,13*S*

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



(5*S*,19*S*)-25-Bromo-27-methoxy-5,19-diphenyl-3,6,9,12,15,18,21-heptaoxabicyclo[21.3.1]heptacosa-1(26),23(27),24-triene

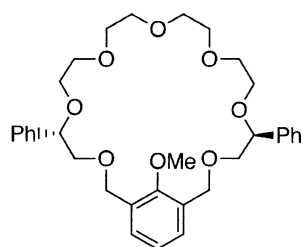
$$[\alpha]_D^{29} = +56.9 \text{ (} c \text{ 1.00, CHCl}_3 \text{)}$$

Source of chirality: (*S*)-(+)-mandelic acid

Absolute configuration: 5*S*,19*S*

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



(5*S*,19*S*)-25-Methoxy-5,19-diphenyl-3,6,9,12,15,18,21-heptaoxabicyclo[21.3.1]heptacosa-1(26),23(27),24-triene

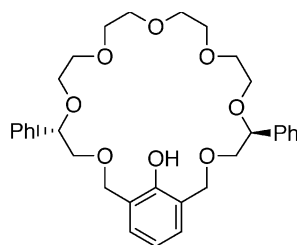
$$[\alpha]_D^{30} = +70.7 \text{ (} c \text{ 0.43, CHCl}_3 \text{)}$$

Source of chirality: (*S*)-(+)-mandelic acid

Absolute configuration: 5*S*,19*S*

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



(5*S*,19*S*)-27-Hydroxy-5,19-diphenyl-3,6,9,12,15,18,21-heptaioxabicyclo[21.3.1]heptacos-1(26),23(27),24-triene

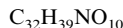
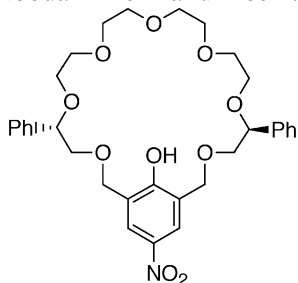
$[\alpha]_D^{26} = +72.1$ (*c* 0.84, $CHCl_3$)

Source of chirality: (*S*)-(+)-mandelic acid

Absolute configuration: 5*S*,19*S*

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



(5*S*,19*S*)-27-Hydroxy-25-nitro-5,19-diphenyl-3,6,9,12,15,18,21-heptaioxabicyclo[21.3.1]heptacos-1(26),23(27),24-triene

E.e. >99%

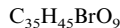
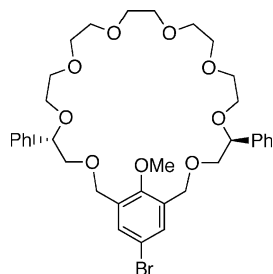
$[\alpha]_D^{25} = +53.3$ (*c* 1.06, $CHCl_3$)

Source of chirality: (*S*)-(+)-mandelic acid

Absolute configuration: 5*S*,19*S*

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



(5*S*,22*S*)-8-Bromo-30-hydroxy-5,22-diphenyl-3,6,9,12,15,18,21,24-octaoxabicyclo[24.3.1]triaconta-1(29),26(30),27-triene

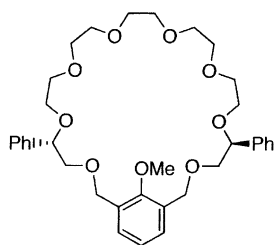
$[\alpha]_D^{26} = +56.9$ (*c* 1.10, $CHCl_3$)

Source of chirality: (*S*)-(+)-mandelic acid

Absolute configuration: 5*S*,22*S*

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



(5*S*,22*S*)-30-Methoxy-5,22-diphenyl-3,6,9,12,15,18,21,24-octaoxabicyclo[24.3.1]triaconta-1(29),26(30),27-triene

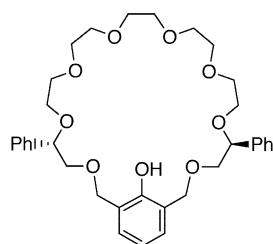
$[\alpha]_D^{26} = +60.0$ (*c* 1.03, $CHCl_3$)

Source of chirality: (*S*)-(+)-mandelic acid

Absolute configuration: 5*S*,22*S*

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



(5*S*,22*S*)-30-Hydroxy-5,22-diphenyl-3,6,9,12,15,18,21,24-octaoxabicyclo[24.3.1]triaconta-1(29),26(30),27-triene

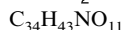
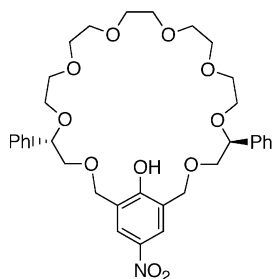
$[\alpha]_D^{26} = +55.8$ (*c* 1.06, $CHCl_3$)

Source of chirality: (*S*)-(+)-mandelic acid

Absolute configuration: 5*S*,22*S*

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



(5*S*,22*S*)-30-Hydroxy-8-nitro-5,22-diphenyl-3,6,9,12,15,18,21,24-octaoxabicyclo[24.3.1]triaconta-1(29),26(30),27-triene

E.e. >99%

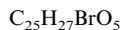
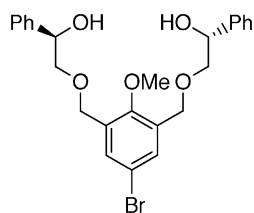
$[\alpha]_D^{27} = +50.5$ (*c* 0.84, $CHCl_3$)

Source of chirality: (*S*)-(+)-mandelic acid

Absolute configuration: 5*S*,22*S*

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



5-Bromo-1,3-bis-[(4*R*)-4-hydroxy-4-phenyl-2-oxabutyl]-2-methoxybenzene

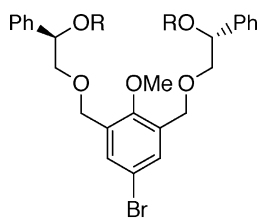
$[\alpha]_D^{26} = -26.3$ (*c* 1.01, $CHCl_3$)

Source of chirality: (*R*)-(-)-mandelic acid

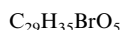
Absolute configuration: *R,R*

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



R=MOM



5-Bromo-2-methoxy-1,3-bis-[(4*R*)-4-methoxymethoxy-4-phenyl-2-oxabutyl]benzene

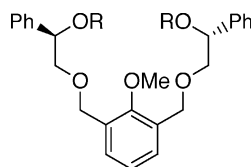
$[\alpha]_D^{26} = -95.1$ (*c* 0.98, $CHCl_3$)

Source of chirality: (*R*)-(-)-mandelic acid

Absolute configuration: *R,R*

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



R=MOM

$C_{29}H_{36}O_5$

2-Methoxy-1,3-bis[(4R)-4-methoxymethoxy-4-phenyl-2-oxabutyl]benzene

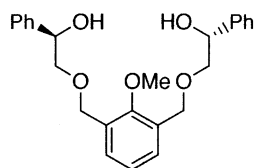
$[\alpha]_D^{26} = -103.2$ (c 0.64, $CHCl_3$)

Source of chirality: (R)-(-)-mandelic acid

Absolute configuration: R,R

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



$C_{25}H_{28}O_5$

1,3-Bis[(4R)-4-hydroxy-4-phenyl-2-oxabutyl]-2-methoxybenzene

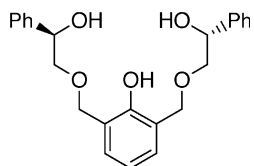
$[\alpha]_D^{26} = -38.5$ (c 1.08, $CHCl_3$)

Source of chirality: (R)-(-)-mandelic acid

Absolute configuration: R,R

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



$C_{24}H_{26}O_5$

2-Hydroxy-1,3-bis[(4R)-4-hydroxy-4-phenyl-2-oxabutyl]benzene

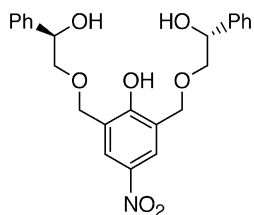
$[\alpha]_D^{26} = -73.1$ (c 1.01, $CHCl_3$)

Source of chirality: (R)-(-)-mandelic acid

Absolute configuration: R,R

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



$C_{24}H_{25}NO_7$

2-Hydroxy-1,3-bis[(4R)-4-hydroxy-4-phenyl-2-oxabutyl]-5-nitrobenzene

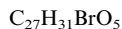
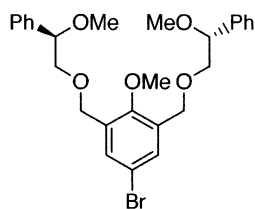
$[\alpha]_D^{26} = -29.3$ (c 1.01, $CHCl_3$)

Source of chirality: (R)-(-)-mandelic acid

Absolute configuration: R,R

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



5-Bromo-2-methoxy-1,3-bis[(4*R*)-4-methoxy-4-phenyl-2-oxabutyl]benzene

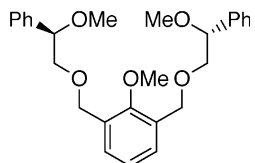
$[\alpha]_D^{26} = -34.7$ (*c* 0.94, $CHCl_3$)

Source of chirality: (*R*)-(-)-mandelic acid

Absolute configuration: *R,R*

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



2-Methoxy-1,3-bis[(4*R*)-4-methoxy-4-phenyl-2-oxabutyl]benzene

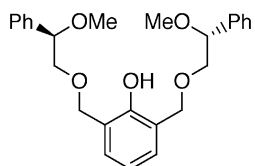
$[\alpha]_D^{26} = -50.4$ (*c* 0.52, $CHCl_3$)

Source of chirality: (*R*)-(-)-mandelic acid

Absolute configuration: *R,R*

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



2-Hydroxy-1,3-bis[(4*R*)-4-methoxy-4-phenyl-2-oxabutyl]benzene

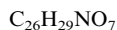
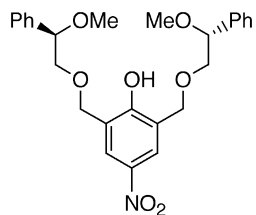
$[\alpha]_D^{26} = -53.5$ (*c* 0.20, $CHCl_3$)

Source of chirality: (*R*)-(-)-mandelic acid

Absolute configuration: *R,R*

Keiji Hirose,* Akihito Fujiwara, Kazuhisa Matsunaga,
Nobuaki Aoki and Yoshito Tobe

Tetrahedron: Asymmetry 14 (2003) 555



2-Hydroxy-1,3-bis[(4*R*)-4-methoxy-4-phenyl-2-oxabutyl]-5-nitrobenzene

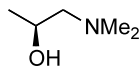
$[\alpha]_D^{28} = -71.0$ (*c* 1.07, $CHCl_3$)

Source of chirality: (*R*)-(-)-mandelic acid

Absolute configuration: *R,R*

Jonathan D. Hull, Feodor Scheinmann* and Nicholas J. Turner

Tetrahedron: Asymmetry 14 (2003) 567



$C_5H_{13}NO$

(*S*)-(+)-1-Dimethylamino-2-propanol

E.e. >99% (by chiral GLC)

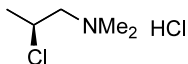
$[\alpha]_D = +23$ (*c* 2.1, EtOH)

Source of chirality: enzymatic resolution

Absolute configuration: *S*

Jonathan D. Hull, Feodor Scheinmann* and Nicholas J. Turner

Tetrahedron: Asymmetry 14 (2003) 567



$C_5H_{13}Cl_2N$

(*S*)-(+)-1-Dimethylamino-2-chloropropane hydrochloride

E.e. >95%

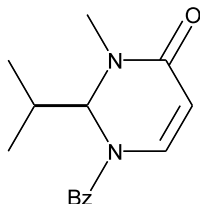
$[\alpha]_D = +65.9$ (*c* 2.01, H_2O)

Source of chirality: synthesis from (*R*)-(-)-1-dimethylamino-2-propylpropanoate

Absolute configuration: *S*

Martín A. Iglesias-Arteaga, Elena Castellanos and Eusebio Juaristi*

Tetrahedron: Asymmetry 14 (2003) 577



$C_{15}H_{17}N_2O_3$

1-Benzoyl-(2*S*)-isopropyl-3-methyl-2,3-dihydro-4(*H*)-pyrimidin-4-one

E.e. = 100%

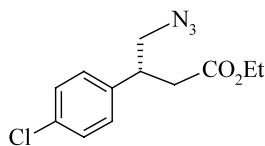
$[\alpha]_D^{25} = +499.0$ (*c* 1.0, $CHCl_3$)

Source of chirality: chiral starting material

Absolute configuration: 2*S*

Vinay V. Thakur, Milind D. Nikalje and A. Sudalai*

Tetrahedron: Asymmetry 14 (2003) 581



$C_{12}H_{14}ClN_3O_2$

(*R*)-Ethyl 4-azido-3-(4-chlorophenyl)-1-butanolate

E.e. = 68%

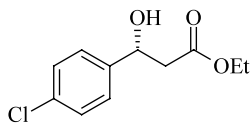
$[\alpha]_D^{25} = -18.66$ (*c* 0.3, MeOH)

Source of chirality: asymmetric hydrogenation

Absolute configuration: *R*

Vinay V. Thakur, Milind D. Nikalje and A. Sudalai*

Tetrahedron: Asymmetry 14 (2003) 581



$C_{11}H_{13}ClO_3$

(*R*)-Ethyl 3-hydroxy-3-(4-chlorophenyl)propionate

Ee = 96%

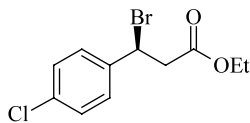
$[\alpha]_D^{25} = +41.3$ (*c* 1.5, $CHCl_3$)

Source of chirality: asymmetric hydrogenation

Absolute configuration: *R*

Vinay V. Thakur, Milind D. Nikalje and A. Sudalai*

Tetrahedron: Asymmetry 14 (2003) 581



$C_{11}H_{12}BrClO_2$

(*S*)-Ethyl 3-bromo-3-(4-chlorophenyl)propionate

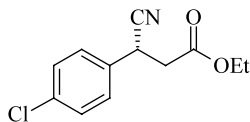
$[\alpha]_D^{25} = -104.2$ (*c* 2.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: *S*

Vinay V. Thakur, Milind D. Nikalje and A. Sudalai*

Tetrahedron: Asymmetry 14 (2003) 581



$C_{12}H_{12}ClNO_2$

(*R*)-Ethyl 3-cyano-3-(4-chlorophenyl)propionate

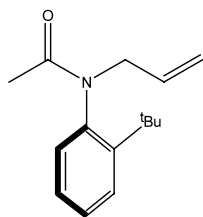
$[\alpha]_D^{25} = +14.1$ (*c* 1.5, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: *R*

Jun Terauchi and Dennis P. Curran*

Tetrahedron: Asymmetry 14 (2003) 587



$C_{17}H_{27}NO$

N-Allyl-*N*-(2-*tert*-butylphenyl)acetamide

Ee = 53%

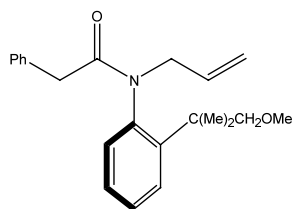
$[\alpha]_D^{23} = +70.6$ (*c* 0.565, $CHCl_3$)

Source of chirality: asymmetric *N*-allylation

Absolute configuration: *P*

Jun Terauchi and Dennis P. Curran*

Tetrahedron: Asymmetry 14 (2003) 587



$C_{22}H_{27}NO_2$

N-Allyl-*N*-[(2-methoxymethyl-1,1-dimethylethyl)phenyl]phenylacetamide

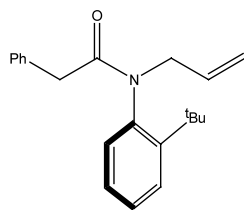
$[\alpha]_D^{23} = +51.7$ (*c* 0.41, $CHCl_3$)

Source of chirality: asymmetric *N*-allylation

Absolute configuration: P

Jun Terauchi and Dennis P. Curran*

Tetrahedron: Asymmetry 14 (2003) 587



$C_{22}H_{27}NO_2$

N-Allyl-*N*-(2-*tert*-butylphenyl)phenylacetamide

Ee = 53%

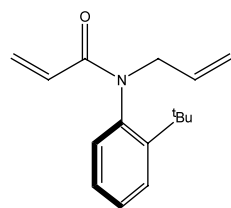
$[\alpha]_D^{23} = +73.4$ (*c* 0.415, $CHCl_3$)

Source of chirality: asymmetric *N*-allylation

Absolute configuration: P

Jun Terauchi and Dennis P. Curran*

Tetrahedron: Asymmetry 14 (2003) 587



$C_{16}H_{21}NO$

N-Allyl-*N*-(2-*tert*-butylphenyl)acrylamide

Ee = 43%

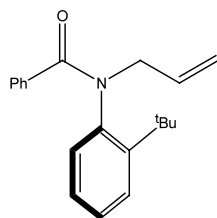
$[\alpha]_D^{23} = +54.5$ (*c* 0.415, $CHCl_3$)

Source of chirality: asymmetric *N*-allylation

Absolute configuration: P

Jun Terauchi and Dennis P. Curran*

Tetrahedron: Asymmetry 14 (2003) 587



$C_{20}H_{23}NO$

N-Allyl-*N*-(2-*tert*-butylphenyl)benzamide

Ee = 36%

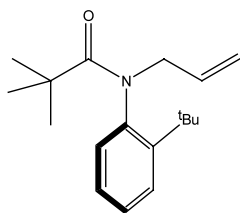
$[\alpha]_D^{23} = +12.4$ (*c* 0.41, $CHCl_3$)

Source of chirality: asymmetric *N*-allylation

Absolute configuration: P

Jun Terauchi and Dennis P. Curran*

Tetrahedron: Asymmetry 14 (2003) 587



$C_{17}H_{27}NO$

N-Allyl-*N*-(2-*tert*-butylphenyl)pivamide

Ee = 12%

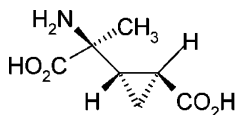
$[\alpha]_D^{25} = +14.6$ (c 0.705, $CHCl_3$)

Source of chirality: asymmetric *N*-allylation

Absolute configuration: P

Hassan Pajouhesh,* Kenneth Curry, Hossein Pajouhesh,
Mahmonir H. Meresht and Brian Patrick

Tetrahedron: Asymmetry 14 (2003) 593



$C_7H_{11}NO_4$

(2*S*,3*S*,4*S*)-2-Methyl-2-(carboxycyclopropyl)glycine, MCCG

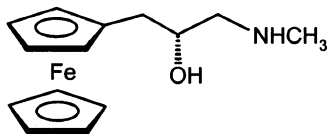
$[\alpha]_D = -54.5$ (c 0.12, H_2O)

Source of chirality: asymmetric synthesis

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

Angela Patti* and Sonia Pedotti

Tetrahedron: Asymmetry 14 (2003) 597



$C_{14}H_{19}FeNO$

(*R*)-1-*N*-Methylamino-2-hydroxy-3-ferrocenylpropane

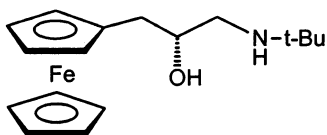
$[\alpha]_D^{25} = -11.5$ (c 0.37, C_6H_6)

Source of chirality: enantiopure starting material

Absolute configuration: *R*

Angela Patti* and Sonia Pedotti

Tetrahedron: Asymmetry 14 (2003) 597



$C_{17}H_{25}FeNO$

(*R*)-1-*N*-*tert*-Butylamino-2-hydroxy-3-ferrocenylpropane

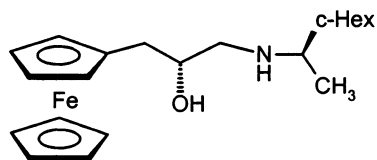
$[\alpha]_D^{25} = -21.8$ (c 1.30, C_6H_6)

Source of chirality: enantiopure starting material

Absolute configuration: *R*

Angela Patti* and Sonia Pedotti

Tetrahedron: Asymmetry 14 (2003) 597



$C_{21}H_{31}FeNO$

1-*N*-[(*R*)-1-Cyclohexylethyl]amino-2-(*R*)-hydroxy-3-ferrocenylpropane

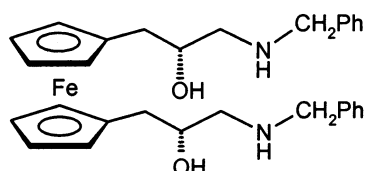
$[\alpha]_D^{25} = -13.0$ (*c* 0.55, $CHCl_3$)

Source of chirality: enantiopure starting material

Absolute configuration: *R,R*

Angela Patti* and Sonia Pedotti

Tetrahedron: Asymmetry 14 (2003) 597



$C_{30}H_{36}FeN_2O_2$

(*R,R*)-1,1'-Bis[(3-*N*-benzylamino-2-hydroxy)propyl]ferrocene

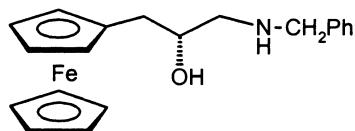
$[\alpha]_D^{25} = -22.9$ (*c* 1.15, C_6H_6)

Source of chirality: enantiopure starting material

Absolute configuration: *R,R*

Angela Patti* and Sonia Pedotti

Tetrahedron: Asymmetry 14 (2003) 597



$C_{20}H_{23}FeNO$

(*R*)-1-*N*-Benzylamino-2-hydroxy-3-ferrocenylpropane

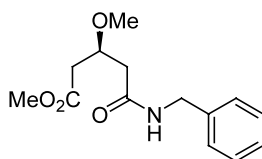
$[\alpha]_D^{25} = -7.9$ (*c* 0.66, C_6H_6)

Source of chirality: enantiopure starting material

Absolute configuration: *R*

Mónica López-García, Ignacio Alfonso and Vicente Gotor*

Tetrahedron: Asymmetry 14 (2003) 603



$C_{14}H_{19}NO_4$

Methyl (*S*)-(+)-3-methoxy-4-(*N*-benzylcarbamoyl)butanoate

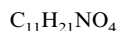
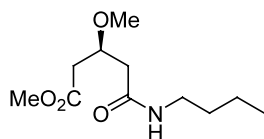
$[\alpha]_D^{20} = +5.5$ (*c* 1.0, $CHCl_3$)

Source of chirality: enzymatic desymmetrization

Absolute configuration (*S*)

Mónica López-García, Ignacio Alfonso and Vicente Gotor*

Tetrahedron: Asymmetry 14 (2003) 603



Methyl (S)-(-)-3-methoxy-4-(N-butylcarbamoyl)butanoate

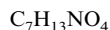
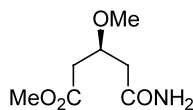
$$[\alpha]_D^{20} = -1.5 \text{ (c 1.0, CHCl}_3\text{)}$$

Source of chirality: enzymatic desymmetrization

Absolute configuration (S)

Mónica López-García, Ignacio Alfonso and Vicente Gotor*

Tetrahedron: Asymmetry 14 (2003) 603



Methyl (S)-(-)-3-methoxy-4-carbamoylbutanoate

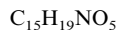
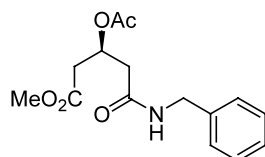
$$[\alpha]_D^{20} = -4.4 \text{ (c 0.7, CHCl}_3\text{)}$$

Source of chirality: enzymatic desymmetrization

Absolute configuration (S)

Mónica López-García, Ignacio Alfonso and Vicente Gotor*

Tetrahedron: Asymmetry 14 (2003) 603



Methyl (S)-(+)-3-acetoxy-4-(N-benzylcarbamoyl)butanoate

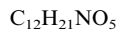
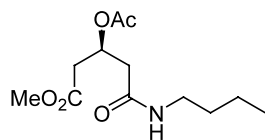
$$[\alpha]_D^{20} = +1.3 \text{ (c 1.1, CHCl}_3\text{)}$$

Source of chirality: enzymatic desymmetrization

Absolute configuration (S)

Mónica López-García, Ignacio Alfonso and Vicente Gotor*

Tetrahedron: Asymmetry 14 (2003) 603



Methyl (S)-(-)-3-acetoxy-4-(N-butylcarbamoyl)butanoate

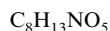
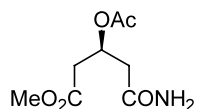
$$[\alpha]_D^{20} = -2.1 \text{ (c 1.1, CHCl}_3\text{)}$$

Source of chirality: enzymatic desymmetrization

Absolute configuration (S)

Mónica López-García, Ignacio Alfonso and Vicente Gotor*

Tetrahedron: Asymmetry 14 (2003) 603



Methyl (S)-(-)-3-acetoxy-4-carbamoylbutanoate

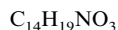
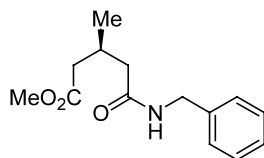
$$[\alpha]_D^{20} = -4.5 \text{ (c 1.1, CHCl}_3\text{)}$$

Source of chirality: enzymatic desymmetrization

Absolute configuration (S)

Mónica López-García, Ignacio Alfonso and Vicente Gotor*

Tetrahedron: Asymmetry 14 (2003) 603



Methyl (S)-(+)-3-methyl-4-(N-benzylcarbamoyl)butanoate

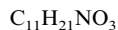
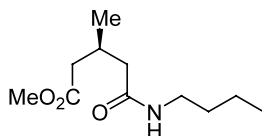
$$[\alpha]_D^{20} = +2.7 \text{ (c 1.1, CHCl}_3\text{)}$$

Source of chirality: enzymatic desymmetrization

Absolute configuration (S)

Mónica López-García, Ignacio Alfonso and Vicente Gotor*

Tetrahedron: Asymmetry 14 (2003) 603



Methyl (S)-(+)-3-methyl-4-(N-butylcarbamoyl)butanoate

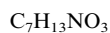
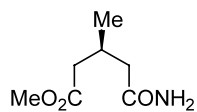
$$[\alpha]_D^{20} = +3.3 \text{ (c 1.0, CHCl}_3\text{)}$$

Source of chirality: enzymatic desymmetrization

Absolute configuration (S)

Mónica López-García, Ignacio Alfonso and Vicente Gotor*

Tetrahedron: Asymmetry 14 (2003) 603



Methyl (S)-(+)-3-methyl-4-carbamoylbutanoate

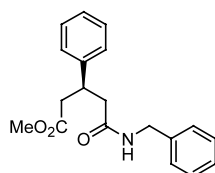
$$[\alpha]_D^{20} = +2.3 \text{ (c 1.2, CHCl}_3\text{)}$$

Source of chirality: enzymatic desymmetrization

Absolute configuration (S)

Mónica López-García, Ignacio Alfonso and Vicente Gotor*

Tetrahedron: Asymmetry 14 (2003) 603



$C_{19}H_{21}NO_3$

Methyl (S)-(+)-3-phenyl-4-(N-benzylcarbamoyl)butanoate

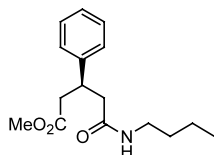
$[\alpha]_D^{20} = +2.0$ (c 0.6, $CHCl_3$)

Source of chirality: enzymatic desymmetrization

Absolute configuration (S)

Mónica López-García, Ignacio Alfonso and Vicente Gotor*

Tetrahedron: Asymmetry 14 (2003) 603



$C_{16}H_{23}NO_3$

Methyl (S)-(-)-3-phenyl-4-(N-butylcarbamoyl)butanoate

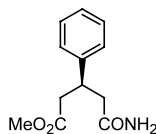
$[\alpha]_D^{20} = -6.3$ (c 0.9, $CHCl_3$)

Source of chirality: enzymatic desymmetrization

Absolute configuration (S)

Mónica López-García, Ignacio Alfonso and Vicente Gotor*

Tetrahedron: Asymmetry 14 (2003) 603



$C_{12}H_{15}NO_3$

Methyl (S)-(-)-3-phenyl-4-carbamoylbutanoate

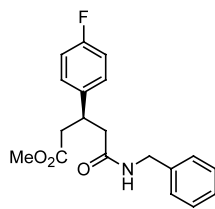
$[\alpha]_D^{20} = -7.0$ (c 1.1, $CHCl_3$)

Source of chirality: enzymatic desymmetrization

Absolute configuration (S)

Mónica López-García, Ignacio Alfonso and Vicente Gotor*

Tetrahedron: Asymmetry 14 (2003) 603



$C_{19}H_{20}FNO_3$

Methyl (S)-(+)-3-(4-fluorophenyl)-4-(N-benzylcarbamoyl)butanoate

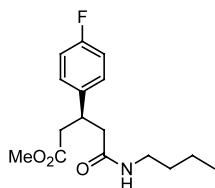
$[\alpha]_D^{20} = +5.0$ (c 1.5, $CHCl_3$)

Source of chirality: enzymatic desymmetrization

Absolute configuration (S)

Mónica López-García, Ignacio Alfonso and Vicente Gotor*

Tetrahedron: Asymmetry 14 (2003) 603



$C_{16}H_{22}FNO_3$

Methyl (S)-(-)-3-(4-fluorophenyl)-4-(N-butylcarbamoyl)butanoate

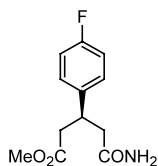
$[\alpha]_D^{20} = -8.9$ (c 1.2, $CHCl_3$)

Source of chirality: enzymatic desymmetrization

Absolute configuration (S)

Mónica López-García, Ignacio Alfonso and Vicente Gotor*

Tetrahedron: Asymmetry 14 (2003) 603



$C_{12}H_{14}FNO_3$

Methyl (S)-(-)-3-(4-fluorophenyl)-4-carbamoylbutanoate

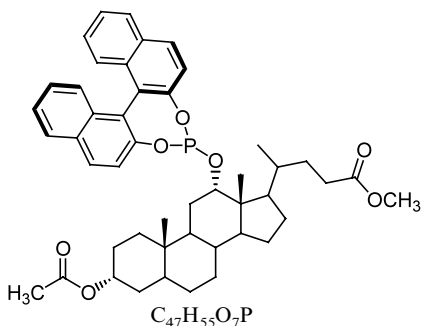
$[\alpha]_D^{20} = -7.5$ (c 1.1, $CHCl_3$)

Source of chirality: enzymatic desymmetrization

Absolute configuration (S)

Anna Iuliano* and Patrizia Scafato*

Tetrahedron: Asymmetry 14 (2003) 611



$C_{47}H_{55}O_7P$

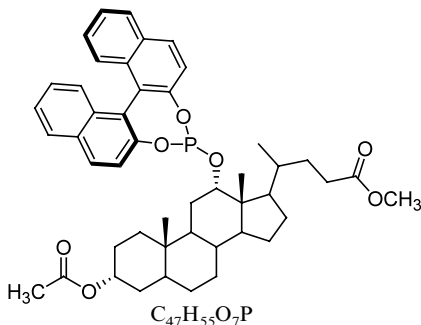
Methyl 3α-acetoxy-12α [(R)-(1,1'-binaphthyl-2,2'-diyl)phosphite]-5β-cholan-24-oate

$[\alpha]_D^{25} = -159.2$ (c 1.0, $CHCl_3$)

Source of chirality: deoxycholic acid and (R)-binaphthol

Anna Iuliano* and Patrizia Scafato*

Tetrahedron: Asymmetry 14 (2003) 611



$C_{47}H_{55}O_7P$

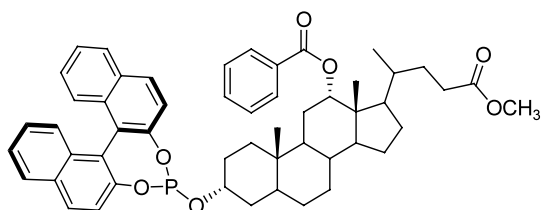
Methyl 3α-acetoxy-12α [(S)-(1,1'-binaphthyl-2,2'-diyl)phosphite]-5β-cholan-24-oate

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

Source of chirality: deoxycholic acid and (S)-binaphthol

Anna Iuliano* and Patrizia Scafato*

Tetrahedron: Asymmetry 14 (2003) 611



$C_{53}H_{60}O_7P$

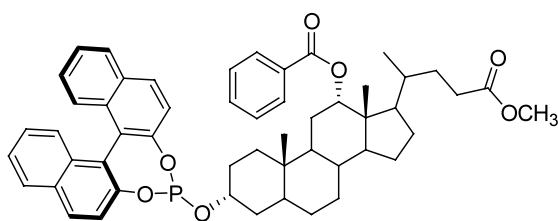
Methyl 3α [(R)-(1,1'-binaphthyl-2,2'-diyl)phosphite]-12α-benzoyloxy-5β-cholan-24-oate

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

Source of chirality: deoxycholic acid and (R)-binaphthol

Anna Iuliano* and Patrizia Scafato*

Tetrahedron: Asymmetry 14 (2003) 611



$C_{53}H_{60}O_7P$

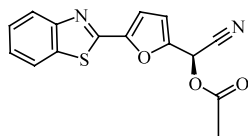
Methyl 3α [(S)-(1,1'-binaphthyl-2,2'-diyl)phosphite]-12α-benzoyloxy-5β-cholan-24-oate

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

Source of chirality: deoxycholic acid and (S)-binaphthol

Csaba Paizs, Monica Toşa, Cornelia Majdik, Petri Tähtinen, Florin Dan Irimie and Liisa T. Kanerva*

Tetrahedron: Asymmetry 14 (2003) 619



$C_{15}H_{10}N_2O_3S$

(R)-5-(Benzothiazol-2-yl)furan-2-ylcyanomethyl acetate

Ee=96% by HPLC on CHIRACEL OD column

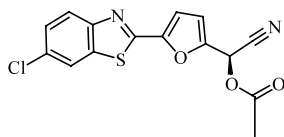
$[\alpha]_D^{25} = +17.9$ (c 1.00, acetonitrile)

Source of chirality: CAL-A-catalysed enantioselective acylation

Absolute configuration: R

Csaba Paizs, Monica Toşa, Cornelia Majdik, Petri Tähtinen, Florin Dan Irimie and Liisa T. Kanerva*

Tetrahedron: Asymmetry 14 (2003) 619



$C_{15}H_9ClN_2O_3S$

(R)-5-(6-Chlorobenzothiazol-2-yl)furan-2-ylcyanomethyl acetate

Ee=84% by HPLC on CHIRACEL OD column

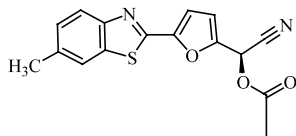
$[\alpha]_D^{25} = +14.2$ (c 1.00, acetonitrile)

Source of chirality: CAL-A-catalysed enantioselective acylation

Absolute configuration: R

Csaba Paizs, Monica Toşa, Cornelia Majdik, Petri Tähtinen,
Florin Dan Irimie and Liisa T. Kanerva*

Tetrahedron: Asymmetry 14 (2003) 619



$C_{16}H_{12}N_2O_3S$

(*R*)-5-(6-Methylbenzothiazol-2-yl)furan-2-ylcyanomethyl acetate

Ee=95% by HPLC on CHIRACEL OD column

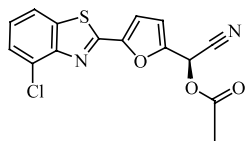
$[\alpha]_D^{25} = +18.2$ (*c* 1.00, acetonitrile)

Source of chirality: CAL-A-catalysed enantioselective acylation

Absolute configuration: *R*

Csaba Paizs, Monica Toşa, Cornelia Majdik, Petri Tähtinen,
Florin Dan Irimie and Liisa T. Kanerva*

Tetrahedron: Asymmetry 14 (2003) 619



$C_{15}H_9ClN_2O_3S$

(*R*)-5-(4-Chlorobenzothiazol-2-yl)furan-2-ylcyanomethyl acetate

Ee=96% by HPLC on CHIRACEL OD column

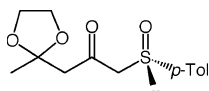
$[\alpha]_D^{25} = +8.1$ (*c* 1.00, acetonitrile)

Source of chirality: CAL-A-catalysed enantioselective acylation

Absolute configuration: *R*

Arun K. Ghosh* and Hui Lei

Tetrahedron: Asymmetry 14 (2003) 629



$C_{14}H_{18}O_4S$

(*S*)-4,4-(Ethylenedioxy)-1-(*p*-tolylsulfinyl)pentan-2-one

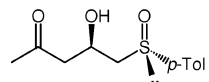
$[\alpha]_D^{23} = -153$ (*c* 0.81, $CHCl_3$)

Source of chirality: (*S*)-methyl-*p*-tolylsulfoxide

Absolute configuration: *S*

Arun K. Ghosh* and Hui Lei

Tetrahedron: Asymmetry 14 (2003) 629



$C_{12}H_{16}O_3S$

(*2R,5S*)-2-Hydroxy-1-(*p*-tolylsulfinyl)pentan-4-one

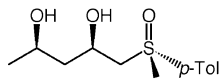
$[\alpha]_D^{23} = -305$ (*c* 0.34, $CHCl_3$)

Source of chirality: (*S*)-methyl-*p*-tolylsulfoxide

Absolute configuration: *2R,5S*

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Tetrahedron: Asymmetry 14 (2003) 629



(2*R*,4*S*)-2,4-Dihydroxy-1-(*p*-tolylsulfinyl)pentane

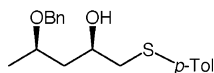
$[\alpha]_D^{23} = -291$ (*c* 1.01, $CHCl_3$)

Source of chirality: (*S*)-methyl-*p*-tolylsulfoxide

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

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Tetrahedron: Asymmetry 14 (2003) 629



(2*R*,4*S*)-4-Benzyloxy-2-hydroxy-1-(mercapto-*p*-tolyl)pentane

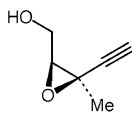
$[\alpha]_D^{23} = -36.5$ (*c* 0.46, $CHCl_3$)

Source of chirality: (*S*)-methyl-*p*-tolylsulfoxide

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

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Tetrahedron: Asymmetry 14 (2003) 629



(2*S*,3*R*)-3-Ethynyl-3-methyl-3-methyloxiranylmethanol

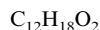
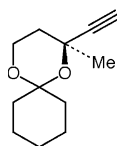
$[\alpha]_D^{23} = -16.5$ (*c* 0.85, $CHCl_3$)

Source of chirality: diethyl L-tartrate

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

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Tetrahedron: Asymmetry 14 (2003) 629



(*S*)-3-Methyl-1,3-*O*-cyclohexylidene-pent-4-yne

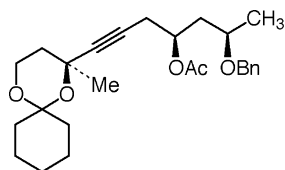
$[\alpha]_D^{23} = +10.0$ (*c* 1.0, $CHCl_3$)

Source of chirality: diethyl L-tartrate

Absolute configuration: *S*

Arun K. Ghosh* and Hui Lei

Tetrahedron: Asymmetry 14 (2003) 629



(3*S*,7*S*,9*R*)-7-Acetoxy-9-benzyloxy-1,3-*O*-cyclohexylidene-3-methyldec-4-yne

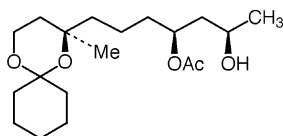
$[\alpha]_D^{23} = +13.9$ (*c* 1.8, $CHCl_3$)

Source of chirality: (*S*)-methyl-*p*-tolylsulfoxide and diethyl L-tartrate

Absolute configuration: 3*S*,7*S*,9*R*

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Tetrahedron: Asymmetry 14 (2003) 629



(3*R*,7*S*,9*R*)-7-Acetoxy-1,3-*O*-cyclohexylidene-9-hydroxy-3-methyldecane

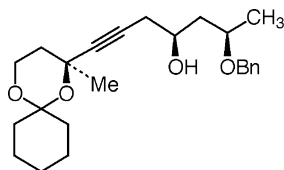
$[\alpha]_D^{23} = -5.3$ (*c* 1.5, $CHCl_3$)

Source of chirality: (*S*)-methyl-*p*-tolylsulfoxide and diethyl tartrate

Absolute configuration: 3*R*,7*S*,9*R*

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Tetrahedron: Asymmetry 14 (2003) 629



(3*R*,7*S*,9*R*)-9-Benzyloxy-7-hydroxy-1,3-*O*-cyclohexylidene-3-methyldec-4-yne

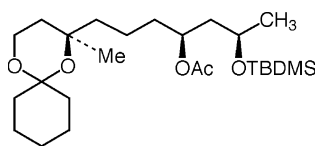
$[\alpha]_D^{23} = -29.4$ (*c* 1.7, $CHCl_3$)

Source of chirality: (*S*)-methyl-*p*-tolylsulfoxide and diethyl L-tartrate

Absolute configuration: 3*S*,7*S*,9*R*

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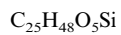
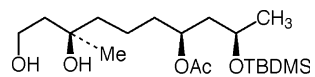


(3*R*,7*S*,9*R*)-7-Acetoxy-9-*tert*-butyldimethylsilyl-1,3-*O*-cyclohexylidene-3-methyldecane

$[\alpha]_D^{23} = -1.3$ (*c* 1.5, $CHCl_3$)

Source of chirality: (*S*)-methyl-*p*-tolylsulfoxide and diethyl L-tartrate

Absolute configuration: 3*R*,7*S*,9*R*



(3*R*,7*S*,9*R*)-7-Acetoxy-9-*O*-*tert*-butyldimethylsilyl-3-methyldecane-1,3-diol

$[\alpha]_{\text{D}}^{23} = -3.8$ (*c* 1.58, CHCl_3)

Source of chirality: (*S*)-methyl-*p*-tolylsulfoxide and diethyl L-tartrate

Absolute configuration: 3*R*,7*S*,9*R*