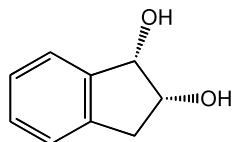


Gelson J. Andrade Conceição, Paulo J. S. Moran and
J. Augusto R. Rodrigues*

Tetrahedron: Asymmetry 14 (2003) 2327

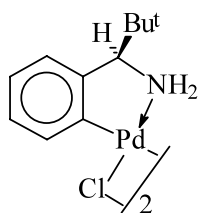


$C_9H_{10}O_2$
(1*S*,2*R*)-1,2-Indandiol

E.e. >99%
 $[\alpha]_D^{20} = -38.8$ (*c* 1, $CHCl_3$)
Source of chirality: biocatalytic reduction
Absolute configuration: (1*S*,2*R*)

Valery V. Dunina,* Elena D. Razmyslova, Ol'ga N. Gorunova,
Michail V. Livantsov and Yuri K. Grishin

Tetrahedron: Asymmetry 14 (2003) 2331

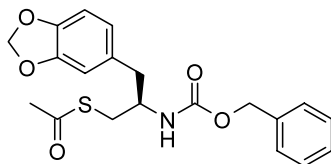


$C_{22}H_{32}C_2N_2Pd_2$
(*R_C*,*R_C*)-Di- μ -chlorobis[2-{1-amino-2,2-dimethylpropyl}phenyl-*C,N*]dipalladium(II)

Ee >98% (based on enantiomeric purity of the starting amine)
 $[\alpha]_D^{20} = -146$ (*c* 0.4, Py/CH_2Cl_2)
Source of chirality: optically active starting α -phenylneopentylamine
Absolute configuration: (*R_C*,*R_C*)

V. Grosset, D. Danvy and M. Capet*

Tetrahedron: Asymmetry 14 (2003) 2335

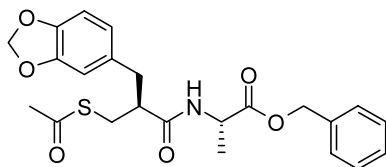


$C_{20}H_{21}NO_5S$
(*R*)-3-Acetylsulfanyl-2-benzyloxycarbonylaminopropylbenzo[1,3]dioxolane

$[\alpha]_D^{20} = +7.6$ (*c* 1.0, $CHCl_3$) $[\alpha]_{365}^{20} = +19.7$
 $[\alpha]_{436}^{20} = +14.0$ $[\alpha]_{546}^{20} = +8.8$ $[\alpha]_{589}^{20} = +7.7$
Source of chirality: resolution of precursor
Absolute stereochemistry: (*S*)

V. Grosset, D. Danvy and M. Capet*

Tetrahedron: Asymmetry 14 (2003) 2335

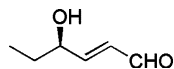


$C_{23}H_{25}NO_6S$
(*S*)-2-[(*S*)-2-Acetylsulfanyl-2-methyl-3-benzyloxycarbonylaminopropionylamino]propionic acid benzyl ester

$[\alpha]_D^{20} = -50.6$ (*c* 1.3, $MeOH$)
Source of chirality: resolution of precursor and chiral pool
Absolute configuration: (*S*,*S*)

Hidetaka Nagatomo, Yoh-ichi Matsushita,* Kazuhiro Sugamoto and Takanao Matsui

Tetrahedron: Asymmetry 14 (2003) 2339



C₆H₁₀O₂

(2E,4R)-4-Hydroxy-2-hexenal

Ee=93%

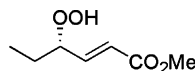
$[\alpha]_D^{20} = -52.3$ (c 1.21, CHCl₃)

Source of chirality: enzymatic resolution

Absolute configuration: 4R

Hidetaka Nagatomo, Yoh-ichi Matsushita,* Kazuhiro Sugamoto and Takanao Matsui

Tetrahedron: Asymmetry 14 (2003) 2339



C₇H₁₂O₄

Methyl (2E,4S)-4-hydroperoxy-2-hexenoate

Ee=93%

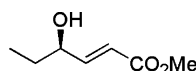
$[\alpha]_D^{20} = -15.1$ (c 3.00, CHCl₃)

Source of chirality: enzymatic resolution

Absolute configuration: 4S

Hidetaka Nagatomo, Yoh-ichi Matsushita,* Kazuhiro Sugamoto and Takanao Matsui

Tetrahedron: Asymmetry 14 (2003) 2339



C₇H₁₂O₃

Methyl (2E,4R)-4-hydroxy-2-hexenoate

Ee=97%

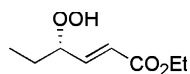
$[\alpha]_D^{20} = -27.8$ (c 2.10, CHCl₃)

Source of chirality: enzymatic resolution

Absolute configuration: 4R

Hidetaka Nagatomo, Yoh-ichi Matsushita,* Kazuhiro Sugamoto and Takanao Matsui

Tetrahedron: Asymmetry 14 (2003) 2339



C₈H₁₄O₄

Ethyl (2E,4S)-4-hydroperoxy-2-hexenoate

Ee >99%

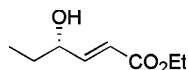
$[\alpha]_D^{20} = -20.3$ (c 1.00, CHCl₃)

Source of chirality: enzymatic resolution

Absolute configuration: 4S

Hidetaka Nagatomo, Yoh-ichi Matsushita,* Kazuhiro Sugamoto and Takanao Matsui

Tetrahedron: Asymmetry 14 (2003) 2339



C₈H₁₄O₃

Ethyl (2*E*,4*S*)-4-hydroxy-2-hexenoate

Ee >99%

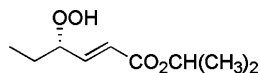
[α]_D²⁰ = +25.0 (c 1.83, CHCl₃)

Source of chirality: enzymatic resolution

Absolute configuration: 4*S*

Hidetaka Nagatomo, Yoh-ichi Matsushita,* Kazuhiro Sugamoto and Takanao Matsui

Tetrahedron: Asymmetry 14 (2003) 2339



C₉H₁₆O₄

Isopropyl (2*E*,4*S*)-4-hydroperoxy-2-hexenoate

Ee = 98%

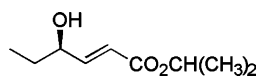
[α]_D²⁰ = -19.8 (c 1.00, CHCl₃)

Source of chirality: enzymatic resolution

Absolute configuration: 4*S*

Hidetaka Nagatomo, Yoh-ichi Matsushita,* Kazuhiro Sugamoto and Takanao Matsui

Tetrahedron: Asymmetry 14 (2003) 2339



C₉H₁₆O₃

Isopropyl (2*E*,4*R*)-4-hydroxy-2-hexenoate

Ee = 98%

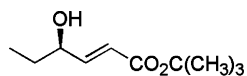
[α]_D²⁰ = -25.2 (c 1.00, CHCl₃)

Source of chirality: enzymatic resolution

Absolute configuration: 4*R*

Hidetaka Nagatomo, Yoh-ichi Matsushita,* Kazuhiro Sugamoto and Takanao Matsui

Tetrahedron: Asymmetry 14 (2003) 2339



C₉H₁₆O₃

t-Butyl (2*E*,4*R*)-4-hydroxy-2-hexenoate

Ee = 95%

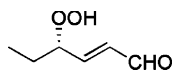
[α]_D²⁰ = -15.0 (c 1.00, CHCl₃)

Source of chirality: enzymatic resolution

Absolute configuration: 4*R*

Hidetaka Nagatomo, Yoh-ichi Matsushita,* Kazuhiro Sugamoto and Takanao Matsui

Tetrahedron: Asymmetry 14 (2003) 2339



C₆H₁₀O₃

(2*E*,4*S*)-4-Hydroperoxy-2-hexenal

Ee = 97%

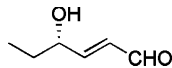
[α]_D²⁰ = -24.4 (*c* 1.56, CHCl₃)

Source of chirality: enzymatic resolution

Absolute configuration: 4*S*

Hidetaka Nagatomo, Yoh-ichi Matsushita,* Kazuhiro Sugamoto and Takanao Matsui

Tetrahedron: Asymmetry 14 (2003) 2339



C₆H₁₀O₂

(2*E*,4*S*)-4-Hydroxy-2-hexenal

Ee = 97%

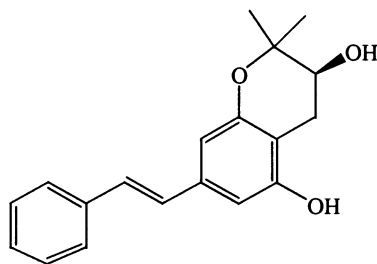
[α]_D²⁰ = +55.0 (*c* 0.73, CHCl₃)

Source of chirality: enzymatic resolution

Absolute configuration: 4*S*

Ying Li,* Yang Hu, Zhixiang Xie and Xuesong Chen

Tetrahedron: Asymmetry 14 (2003) 2355



C₁₉H₂₀O₃

Chircanine B

E.e. = 97%

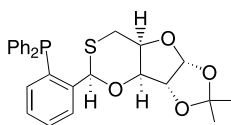
[α]_D²⁰ = -12 (*c* 0.9, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: *S*

Hiroto Nakano,* Jun-ichi Yokoyama, Yuko Okuyama, Reiko Fujita and Hiroshi Hongo

Tetrahedron: Asymmetry 14 (2003) 2361



C₂₇H₂₇O₄PS

(1*S*,3*R*,6*R*,8*R*,9*R*)-2,7-Dioxa-3-[2-(diphenylphosphino)phenyl]-8,9-*O*-isopropylidene-D-xylofuranose

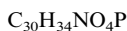
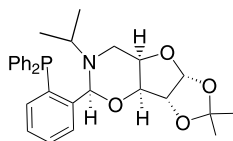
Ee = 100%

[α]_D²³ = -78.0 (*c* 1.0, CHCl₃)

Source of chirality: 1,2-*O*-isopropylidene-D-xylofuranose

Hiroto Nakano,* Jun-ichi Yokoyama, Yuko Okuyama,
Reiko Fujita and Hiroshi Hongo

Tetrahedron: Asymmetry 14 (2003) 2361



(1*S*,3*S*,6*R*,8*R*,9*R*)-4-Aza-2,7-dioxa-3-[2-(diphenylphosphino)phenyl]-4-isopropyl-8,9-*O*-isopropylidenebicyclo[4.3.0]nonane

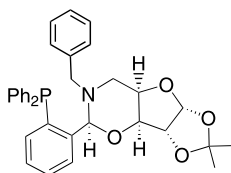
Ee = 100%

$[\alpha]_D^{23} = +17.9$ (c 1.2, CHCl₃)

Source of chirality: 1,2-*O*-isopropylidene-D-xylofuranose

Hiroto Nakano,* Jun-ichi Yokoyama, Yuko Okuyama,
Reiko Fujita and Hiroshi Hongo

Tetrahedron: Asymmetry 14 (2003) 2361



(1*S*,3*S*,6*R*,8*R*,9*R*)-4-Aza-4-benzyl-2,7-dioxa-3-[2-(diphenylphosphino)phenyl]-4-isopropyl-8,9-*O*-isopropylidenebicyclo[4.3.0]nonane

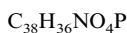
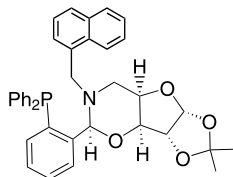
Ee = 100%

$[\alpha]_D^{23} = +79.8$ (c 1.3, CHCl₃)

Source of chirality: 1,2-*O*-isopropylidene-D-xylofuranose

Hiroto Nakano,* Jun-ichi Yokoyama, Yuko Okuyama,
Reiko Fujita and Hiroshi Hongo

Tetrahedron: Asymmetry 14 (2003) 2361



(1*S*,3*S*,6*R*,8*R*,9*R*)-4-Aza-4-benzyl-2,7-dioxa-3-[2-(diphenylphosphino)phenyl]-4-isopropyl-8,9-*O*-isopropylidene-4-(1-naphthyl)methylbicyclo[4.3.0]nonane

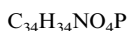
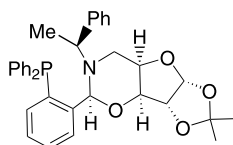
Ee = 100%

$[\alpha]_D^{23} = +73.5$ (c 1.2, CHCl₃)

Source of chirality: 1,2-*O*-isopropylidene-D-xylofuranose

Hiroto Nakano,* Jun-ichi Yokoyama, Yuko Okuyama,
Reiko Fujita and Hiroshi Hongo

Tetrahedron: Asymmetry 14 (2003) 2361



(1*S*,3*S*,6*R*,8*R*,9*R*)-4-Aza-2,7-dioxa-3-[2-(diphenylphosphino)phenyl]-4-isopropyl-8,9-*O*-isopropylidene-4-(4(*R*)-phenylethyl)bicyclo[4.3.0]nonane

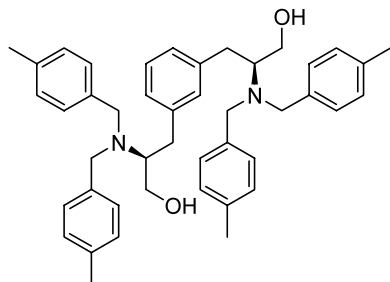
Ee = 100%

$[\alpha]_D^{23} = +46.9$ (c 1.3, CHCl₃)

Source of chirality: 1,2-*O*-isopropylidene-D-xylofuranose

Ruxandra D. Ionescu,* Anna Blom and Torbjörn Frejd

Tetrahedron: Asymmetry 14 (2003) 2369



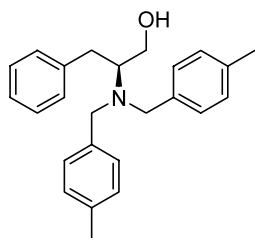
$[\alpha]_D^{25} = +17.9$ (*c* 1.4, EtOH)

$C_{44}H_{52}N_2O_2$

(*S,S*)-2-[Bis-(4-methyl-benzyl)-amino]-3-(3-{2-[bis-(4-methyl-benzyl)-amino]-3-hydroxy-propyl}-phenyl)-propan-1-ol

Ruxandra D. Ionescu,* Anna Blom and Torbjörn Frejd

Tetrahedron: Asymmetry 14 (2003) 2369



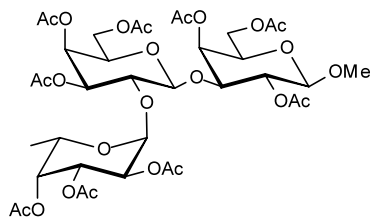
$[\alpha]_D^{25} = +12.7$ (*c* 11.3, CHCl₃)

$C_{25}H_{29}NO$

(*S*)-2-[Bis-(4-methyl-benzyl)-amino]-3-phenyl-propan-1-ol

Angela Michelle Scheppokat, Minoru Morita, Joachim Thiem* and Hagen Bretting

Tetrahedron: Asymmetry 14 (2003) 2381



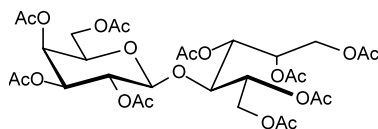
$[\alpha]_D^{20} = -33.0$ (*c* 0.10, CHCl₃)

$C_{37}H_{52}O_{24}$

Methyl 2,4,6-tri-*O*-acetyl-3-*O*-[3,4,6-tri-*O*-acetyl-2-*O*-(2,3,4-tri-*O*-acetyl- α -L-fucopyranosyl)- β -D-galactopyranosyl]- β -D-galactopyranoside

Angela Michelle Scheppokat, Minoru Morita, Joachim Thiem* and Hagen Bretting

Tetrahedron: Asymmetry 14 (2003) 2381



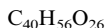
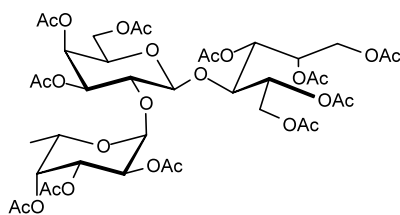
$[\alpha]_D^{20} = -11.4$ (*c* 0.36, CHCl₃)

$C_{30}H_{42}O_{20}$

1,2,3,5,6-Penta-*O*-acetyl-4-*O*-(2,3,4,6-tetra-*O*-acetyl- β -D-galactopyranosyl)-D-mannitol

Angela Michelle Scheppokat, Minoru Morita, Joachim Thiem*
and Hagen Bretting

Tetrahedron: Asymmetry 14 (2003) 2381

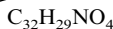
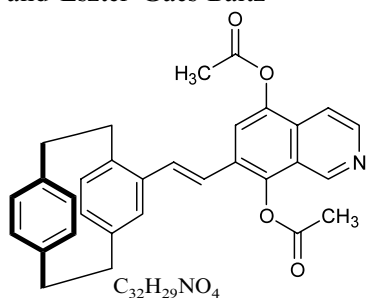


1,2,3,5,6-Penta-*O*-acetyl-4-*O*-[3,4,6-tri-*O*-acetyl-2-*O*-(2,3,4-tri-*O*-acetyl- α -L-fuco-pyranosyl)- β -D-galactopyranosyl]-D-mannitol

$[\alpha]_D^{20} = -36.7$ (*c* 0.09, $CHCl_3$)

Lucio Minuti,* Aldo Taticchi,* Daniela Lanari, Assunta Marrocchi
and Eszter Gacs-Baitz

Tetrahedron: Asymmetry 14 (2003) 2387



(*S*)-(+)-5-(Acetyloxy)-7-[(*E*)-2-tricyclo[8.2.2.2^{4,7}]hexadeca-1(12),4,6,10,13,15-hexaen-5-ylvinyl]isoquinolin-8-yl acetate

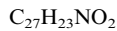
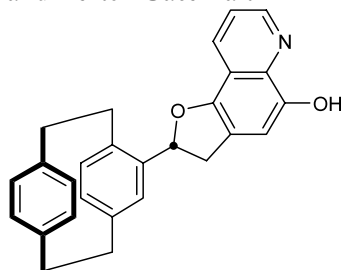
E.e. >99%

$[\alpha]_D^{25} = +212$ (*c* 0.70, $CHCl_3$)

Source of chirality: (*S*)-(+)-4-ethenyl[2.2]paracyclophane

Lucio Minuti,* Aldo Taticchi,* Daniela Lanari, Assunta Marrocchi
and Eszter Gacs-Baitz

Tetrahedron: Asymmetry 14 (2003) 2387



(*S,R*)-(-)-2-Tricyclo[8.2.2.2^{4,7}]hexadeca-1(12),4,6,10,13,15-hexaen-5-yl-2,3-dihydrofuro[2,3-f]quinolin-5-ol

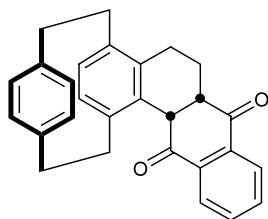
E.e. >99%

$[\alpha]_D^{25} = -67$ (*c* 0.33, $CHCl_3$)

Source of chirality: (*S*)-(+)-4-ethenyl[2.2]paracyclophane

Lucio Minuti,* Aldo Taticchi,* Daniela Lanari, Assunta Marrocchi
and Eszter Gacs-Baitz

Tetrahedron: Asymmetry 14 (2003) 2387



(*R,S,S*)-(+)-2,3,8,9,11,12,12a,18a-Octahydro-1,10:4,7-diethenocyclododeca[a]anthracene-13,18-dione

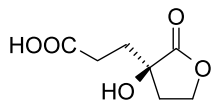
E.e. >99%

$[\alpha]_D^{25} = +84$ (*c* 0.36, $CHCl_3$)

Source of chirality: (*S*)-(+)-4-ethenyl[2.2]paracyclophane

Anne Paju, Tõnis Kanger, Olivia Niitsoo, Tõnis Pehk,
Aleksander-Mati Müürisepp and Margus Lopp*

Tetrahedron: Asymmetry 14 (2003) 2393



C₇H₁₀O₅

(*R*)-3-(3-Hydroxy-2-oxotetrahydrofuran-3-yl)propanoic acid

Ee >95%

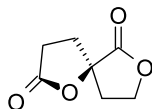
$[\alpha]_D^{20} = +13$ (c 2.04, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: 3*R*

Anne Paju, Tõnis Kanger, Olivia Niitsoo, Tõnis Pehk,
Aleksander-Mati Müürisepp and Margus Lopp*

Tetrahedron: Asymmetry 14 (2003) 2393



C₇H₈O₄

(*R*)-1,7-Dioxaspiro[4.4]nonane-2,6-dione

Ee >95%

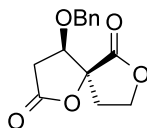
$[\alpha]_D^{20} = +72$ (c 1.08, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: 5*R*

Anne Paju, Tõnis Kanger, Olivia Niitsoo, Tõnis Pehk,
Aleksander-Mati Müürisepp and Margus Lopp*

Tetrahedron: Asymmetry 14 (2003) 2393



C₁₄H₁₄O₅

(4*R*,5*S*)-4-Benzyloxy-1,7-dioxaspiro[4.4]nonane-2,6-dione

Ee = 86%

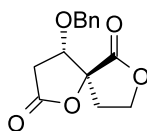
$[\alpha]_D^{21} = -42$ (c 4.09, CH₂Cl₂)

Source of chirality: asymmetric synthesis

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

Anne Paju, Tõnis Kanger, Olivia Niitsoo, Tõnis Pehk,
Aleksander-Mati Müürisepp and Margus Lopp*

Tetrahedron: Asymmetry 14 (2003) 2393



C₁₄H₁₄O₅

(4*S*,5*S*)-4-Benzyloxy-1,7-dioxaspiro[4.4]nonane-2,6-dione

Ee = 93%

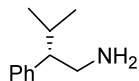
$[\alpha]_D^{21} = +153$ (c 0.89, CHCl₃)

Source of chirality: asymmetric synthesis

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

Elisabetta Brenna,* Claudio Fuganti, Francesco G. Gatti,
Massimo Passoni and Stefano Serra

Tetrahedron: Asymmetry 14 (2003) 2401



(*S*)-3-Methyl-2-phenylbutylamine

Ee = 96%

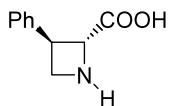
$[\alpha]_D^{20} = -17.6$ (*c* 0.81, CHCl₃)

Source of chirality: enzymatic resolution

Absolute configuration: 3*S*

François Couty,* Gwilherm Evano and Nicolas Rabasso

Tetrahedron: Asymmetry 14 (2003) 2407



C₁₀H₁₁NO₂

(*2R,3R*)-3-Phenyl-azetidine-2-carboxylic acid

E.e. >95%

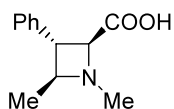
$[\alpha]_D^{20} = -118$ (*c* 2, H₂O)

Source of chirality: (*R*)-Phenylglycinol

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

François Couty,* Gwilherm Evano and Nicolas Rabasso

Tetrahedron: Asymmetry 14 (2003) 2407



C₁₂H₁₅NO₂

(*2S,3S,4S*)-(1,4-Dimethyl-3-phenyl-azetidine-2-yl)-carboxylic acid

E.e. >95%

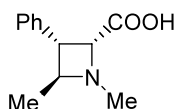
$[\alpha]_D^{20} = -61$ (*c* 0.8, H₂O)

Source of chirality: (*1R,2S*)-Ephedrine

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

François Couty,* Gwilherm Evano and Nicolas Rabasso

Tetrahedron: Asymmetry 14 (2003) 2407



C₁₂H₁₅NO₂

(*2R,3S,4S*)-(1,4-Dimethyl-3-phenyl-azetidine-2-yl)-carboxylic acid

E.e. >95%

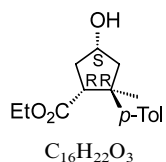
$[\alpha]_D^{20} = +64$ (*c* 1.2, H₂O)

Source of chirality: (*1R,2S*)-Ephedrine

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

Samir Acherar, Gérard Audran, Nicolas Vanthuynne and Honoré Monti*

Tetrahedron: Asymmetry 14 (2003) 2413



(1*R*,2*R*,4*S*)-4-Hydroxy-2-methyl-2-*p*-tolyl-cyclopentanecarboxylic acid ethyl ester

Ee >98% [by chiral HPLC]

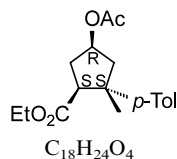
$[\alpha]_D^{20} = -93.3$ (*c* 1.0, CHCl₃)

Source of chirality: CAL-B mediated kinetic resolution

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

Samir Acherar, Gérard Audran, Nicolas Vanthuynne and Honoré Monti*

Tetrahedron: Asymmetry 14 (2003) 2413



(1*S*,2*S*,4*R*)-4-Acetoxy-2-methyl-2-*p*-tolyl-cyclopentanecarboxylic acid ethyl ester

Ee >98% [by chiral HPLC]

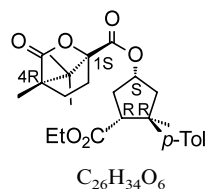
$[\alpha]_D^{20} = +50.6$ (*c* 1.0, CHCl₃)

Source of chirality: CAL-B mediated kinetic resolution

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

Samir Acherar, Gérard Audran, Nicolas Vanthuynne and Honoré Monti*

Tetrahedron: Asymmetry 14 (2003) 2413



(1*S*,4*R*,1'*S*,3'*R*,4'*R*)-4,7,7-Trimethyl-3-oxo-2-oxa-bicyclo[2.2.1]heptane-1-carboxylic acid 4'-ethoxycarbonyl-3'-methyl-3'-*p*-tolyl-1'-cyclopentyl ester

Ee >98% [by chiral HPLC]

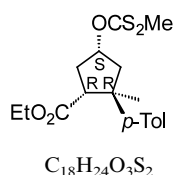
$[\alpha]_D^{20} = -27.5$ (*c* 1.0, CHCl₃)

Source of chirality: asymmetric synthesis

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

Samir Acherar, Gérard Audran, Nicolas Vanthuynne and Honoré Monti*

Tetrahedron: Asymmetry 14 (2003) 2413



(1*R*,2*R*,4*S*)-2-Methyl-4-methylsulfanylthiocarboxyxy-2-*p*-tolyl-cyclopentanecarboxylic acid ethyl ester

Ee >98% [by chiral HPLC]

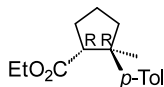
$[\alpha]_D^{20} = -37.7$ (*c* 1.0, CHCl₃)

Source of chirality: asymmetric synthesis

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

Samir Acherar, Gérard Audran, Nicolas Vanthuynne
and Honoré Monti*

Tetrahedron: Asymmetry 14 (2003) 2413



$C_{16}H_{22}O_2$

(1*R*,2*R*)-2-Methyl-2-*p*-tolyl-cyclopentanecarboxylic acid ethyl ester

$E_e > 98\%$ [by chiral HPLC]

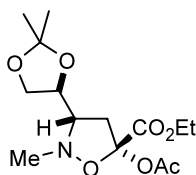
$[\alpha]_D^{20} = -98.0$ (*c* 1.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Ugo Chiacchio,* Luisa Borrello, Daniela Iannazzo, Pedro Merino,*
Anna Piperno, Antonio Rescifina, Barbara Richichi and
Giovanni Romeo*

Tetrahedron: Asymmetry 14 (2003) 2419



$C_{14}H_{23}NO_7$

Ethyl (3*S*,5*S*)-5-(acetyloxy)-3-[(4*S*)-2,2-dimethyl-1,3-dioxolan-4-yl]-2-methylisoxazolidine-5-carboxylate

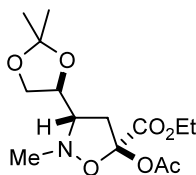
$[\alpha]_D^{25} = -9.7$ (*c* 0.36, $CHCl_3$)

Source of chirality: D-glyceraldehyde

Absolute configuration: 2*R*

Ugo Chiacchio,* Luisa Borrello, Daniela Iannazzo, Pedro Merino,*
Anna Piperno, Antonio Rescifina, Barbara Richichi and
Giovanni Romeo*

Tetrahedron: Asymmetry 14 (2003) 2419



$C_{14}H_{23}NO_7$

Ethyl (3*S*,5*R*)-5-(acetyloxy)-3-[(4*S*)-2,2-dimethyl-1,3-dioxolan-4-yl]-2-methylisoxazolidine-5-carboxylate

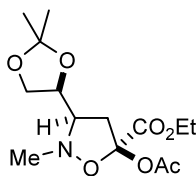
$[\alpha]_D^{25} = +11.7$ (*c* 0.13, $CHCl_3$)

Source of chirality: D-glyceraldehyde

Absolute configuration: 2*R*

Ugo Chiacchio,* Luisa Borrello, Daniela Iannazzo, Pedro Merino,*
Anna Piperno, Antonio Rescifina, Barbara Richichi and
Giovanni Romeo*

Tetrahedron: Asymmetry 14 (2003) 2419



$C_{14}H_{23}NO_7$

Ethyl (3*R*,5*R*)-5-(acetyloxy)-3-[(4*S*)-2,2-dimethyl-1,3-dioxolan-4-yl]-2-methylisoxazolidine-5-carboxylate

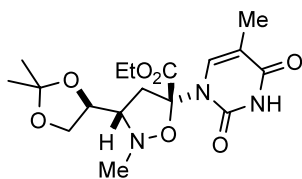
$[\alpha]_D^{25} = -7.3$ (*c* 0.12, $CHCl_3$)

Source of chirality: D-glyceraldehyde

Absolute configuration: 2*R*

Ugo Chiacchio,* Luisa Borrello, Daniela Iannazzo, Pedro Merino,*
Anna Piperno, Antonio Rescifina, Barbara Richichi and
Giovanni Romeo*

Tetrahedron: Asymmetry 14 (2003) 2419



$C_{17}H_{25}N_3O_7$

Ethyl (3*S*,5*S*)-3-[(4*S*)-2,2-dimethyl-1,3-dioxolan-4-yl]-2-methyl-5-(5-methyl-2,4-dioxo-3,4-dihydropyrimidin-1(2*H*)-yl)isoxazolidine-5-carboxylate

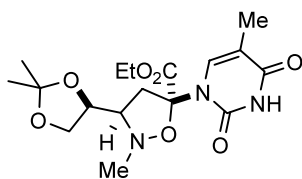
$[\alpha]_D^{25} = -4.5$ (*c* 0.56, $CHCl_3$)

Source of chirality: D-glyceraldehyde

Absolute configuration: 2*R*

Ugo Chiacchio,* Luisa Borrello, Daniela Iannazzo, Pedro Merino,*
Anna Piperno, Antonio Rescifina, Barbara Richichi and
Giovanni Romeo*

Tetrahedron: Asymmetry 14 (2003) 2419



$C_{17}H_{25}N_3O_7$

Ethyl (3*R*,5*R*)-3-[(4*S*)-2,2-dimethyl-1,3-dioxolan-4-yl]-2-methyl-5-(5-methyl-2,4-dioxo-3,4-dihydropyrimidin-1(2*H*)-yl)isoxazolidine-5-carboxylate

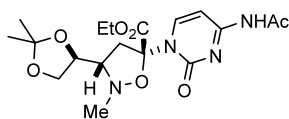
$[\alpha]_D^{25} = -7.7$ (*c* 0.58, $CHCl_3$)

Source of chirality: D-glyceraldehyde

Absolute configuration: 2*R*

Ugo Chiacchio,* Luisa Borrello, Daniela Iannazzo, Pedro Merino,*
Anna Piperno, Antonio Rescifina, Barbara Richichi and
Giovanni Romeo*

Tetrahedron: Asymmetry 14 (2003) 2419



$C_{18}H_{26}N_4O_7$

Ethyl (3*S*,5*S*)-5-[4-(acetylamino)-2-oxopyrimidin-1(2*H*)-yl]-3-[(4*S*)-2,2-dimethyl-1,3-dioxolan-4-yl]-2-methylisoxazolidine-5-carboxylate

$[\alpha]_D^{25} = +18.3$ (*c* 1.20, $CHCl_3$)

Source of chirality: D-glyceraldehyde

Absolute configuration: 2*R*

Ugo Chiacchio,* Luisa Borrello, Daniela Iannazzo, Pedro Merino,*
Anna Piperno, Antonio Rescifina, Barbara Richichi and
Giovanni Romeo*

Tetrahedron: Asymmetry 14 (2003) 2419



$C_{18}H_{26}N_4O_7$

Ethyl (3*R*,5*R*)-5-[4-(acetylamino)-2-oxopyrimidin-1(2*H*)-yl]-3-[(4*S*)-2,2-dimethyl-1,3-dioxolan-4-yl]-2-methylisoxazolidine-5-carboxylate

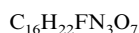
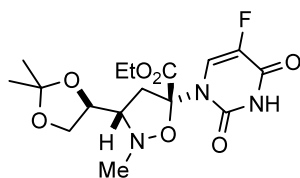
$[\alpha]_D^{25} = +12.5$ (*c* 0.12, $CHCl_3$)

Source of chirality: D-glyceraldehyde

Absolute configuration: 2*R*

Ugo Chiacchio,* Luisa Borrello, Daniela Iannazzo, Pedro Merino,*
Anna Piperno, Antonio Rescifina, Barbara Richichi and
Giovanni Romeo*

Tetrahedron: Asymmetry 14 (2003) 2419



Ethyl (3*S*,5*S*)-3-[(4*S*)-2,2-dimethyl-1,3-dioxolan-4-yl]-5-(5-fluoro-2,4-dioxo-3,4-dihydropyrimidin-1(2*H*)-yl)-2-methylisoxazolidine-5-carboxylate

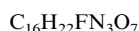
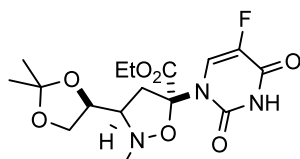
$[\alpha]_D^{25} = +6.4$ (*c* 0.31, $CHCl_3$)

Source of chirality: D-glyceraldehyde

Absolute configuration: 2*R*

Ugo Chiacchio,* Luisa Borrello, Daniela Iannazzo, Pedro Merino,*
Anna Piperno, Antonio Rescifina, Barbara Richichi and
Giovanni Romeo*

Tetrahedron: Asymmetry 14 (2003) 2419



Ethyl (3*R*,5*R*)-3-[(4*S*)-2,2-dimethyl-1,3-dioxolan-4-yl]-5-(5-fluoro-2,4-dioxo-3,4-dihydropyrimidin-1(2*H*)-yl)-2-methylisoxazolidine-5-carboxylate

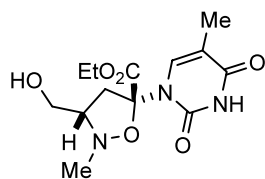
$[\alpha]_D^{25} = +6.5$ (*c* 0.85, $CHCl_3$)

Source of chirality: D-glyceraldehyde

Absolute configuration: 2*R*

Ugo Chiacchio,* Luisa Borrello, Daniela Iannazzo, Pedro Merino,*
Anna Piperno, Antonio Rescifina, Barbara Richichi and
Giovanni Romeo*

Tetrahedron: Asymmetry 14 (2003) 2419



Ethyl (3*S*,5*S*)-3-(hydroxymethyl)-2-methyl-5-(5-methyl-2,4-dioxo-3,4-dihydropyrimidin-1(2*H*)-yl)isoxazolidine-5-carboxylate

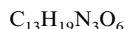
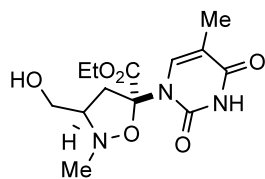
$[\alpha]_D^{25} = +13.1$ (*c* 0.96, $CHCl_3$)

Source of chirality: D-glyceraldehyde

Absolute configuration: 2*R*

Ugo Chiacchio,* Luisa Borrello, Daniela Iannazzo, Pedro Merino,*
Anna Piperno, Antonio Rescifina, Barbara Richichi and
Giovanni Romeo*

Tetrahedron: Asymmetry 14 (2003) 2419



Ethyl (3*R*,5*R*)-3-(hydroxymethyl)-2-methyl-5-(5-methyl-2,4-dioxo-3,4-dihydropyrimidin-1(2*H*)-yl)isoxazolidine-5-carboxylate

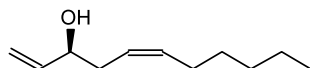
$[\alpha]_D^{25} = -12.8$ (*c* 0.85, $CHCl_3$)

Source of chirality: D-glyceraldehyde

Absolute configuration: 2*R*

Andreas Wallner, Harald Mang, Silvia M. Glueck,
Andreas Steinreiber, Sandra F. Mayer and Kurt Faber*

Tetrahedron: Asymmetry 14 (2003) 2427



C₁₁H₂₀O

(*S*)-Undeca-1,5*Z*-dien-3-ol

E_e = 91%

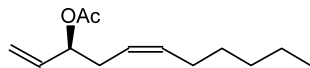
[α]_D²⁰ = -2.8 (c 1.45, CHCl₃)

Source of chirality: enzymatic resolution

Absolute configuration: (*S*)

Andreas Wallner, Harald Mang, Silvia M. Glueck,
Andreas Steinreiber, Sandra F. Mayer and Kurt Faber*

Tetrahedron: Asymmetry 14 (2003) 2427



C₁₃H₂₂O₂

(*S*)-3-Acetoxy-undeca-1,5*Z*-diene (*S*)-Dictyoprolene

E_e = 98%

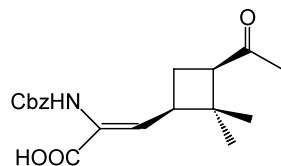
[α]_D²⁰ = +12.0 (c 1.40, CHCl₃)

Source of chirality: enzymatic resolution

Absolute configuration: (*S*)

Gemma P. Aguado, Albertina G. Moglioni, Beatriz N. Brousse and
Rosa M. Ortuño*

Tetrahedron: Asymmetry 14 (2003) 2445



C₁₉H₂₃NO₅

(1'*R*,3'*R*)-2-Benzyloxycarbonylamino-3-(3'-acetyl-2',2'-dimethylcyclobutyl)-(Z)-2-propenoic acid

E_e = 95%

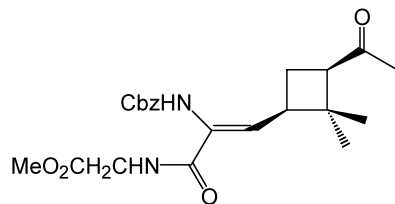
[α]_D = -20.9 (c 0.76, MeOH)

Source of chirality: (-)-*S*-verbenone

Absolute configuration: 1'*R*,3'*R*

Gemma P. Aguado, Albertina G. Moglioni, Beatriz N. Brousse and
Rosa M. Ortuño*

Tetrahedron: Asymmetry 14 (2003) 2445



C₂₂H₂₈N₂O₆

(1'*R*,3'*R*)-3-(3'-Acetyl-2',2'-dimethylcyclobutyl)-2-benzyloxycarbonylamino-*N*-methoxycarbonylmethyl-2-(Z)-propanamide

E_e = 95%

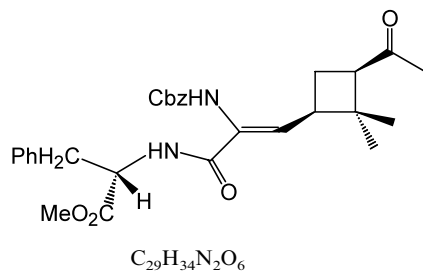
[α]_D = -8.6 (c 0.58, MeOH)

Source of chirality: (-)-*S*-verbenone

Absolute configuration: 1'*R*,3'*R*

Gemma P. Aguado, Albertina G. Moglioni, Beatriz N. Brousse and Rosa M. Ortuño*

Tetrahedron: Asymmetry 14 (2003) 2445



(1'*R*,3'*R*)-3-(3'-Acetyl-2',2'-dimethylcyclobutyl)-2-benzyloxycarbonylamino-(1''*S*)-*N*-(1''-benzyl-1''-methoxycarbonyl)methyl-2-(*Z*)-propenamide

E.e. = 95%

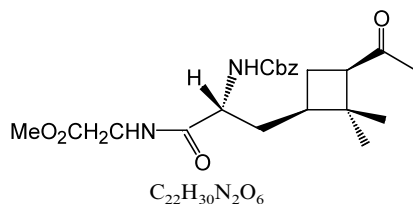
$[\alpha]_D = -30$ (c 0.10, MeOH)

Source of chirality: (-)-*S*-verbenone

Absolute configuration: 1'*R*,3'*R*

Gemma P. Aguado, Albertina G. Moglioni, Beatriz N. Brousse and Rosa M. Ortuño*

Tetrahedron: Asymmetry 14 (2003) 2445



(2*R*,1'*R*,3'*R*)-3-(3'-Acetyl-2',2'-dimethylcyclobutyl)-2-benzyloxycarbonylamino-*N*-methoxycarbonylmethyl-propamide

E.e. = 95%

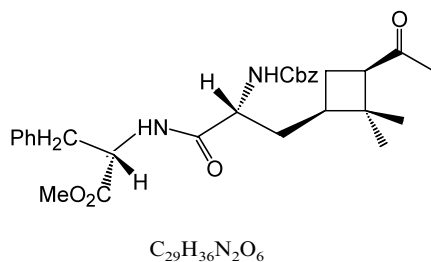
$[\alpha]_D = +32$ (c 0.1, MeOH)

Source of chirality: (-)-*S*-verbenone

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

Gemma P. Aguado, Albertina G. Moglioni, Beatriz N. Brousse and Rosa M. Ortuño*

Tetrahedron: Asymmetry 14 (2003) 2445



(2*R*,1'*R*,3'*R*)-3-(3'-Acetyl-2',2'-dimethylcyclobutyl)-2-benzyloxycarbonylamino-(1''*S*)-*N*-(1''-benzyl-1''-methoxycarbonyl)methyl-propamide

E.e. = 95%

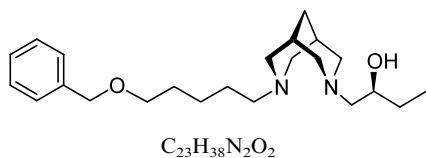
$[\alpha]_D = -7.7$ (c 1.2, MeOH)

Source of chirality: (-)-*S*-verbenone

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

Giordano Lesma,* Bruno Danieli, Daniele Passarella, Alessandro Sacchetti and Alessandra Silvani*

Tetrahedron: Asymmetry 14 (2003) 2453



(*S*)-2-[7-(5-Benzyloxypropyl)-3,7-diazabicyclo[3.3.1]non-3-yl]-butan-2-ol

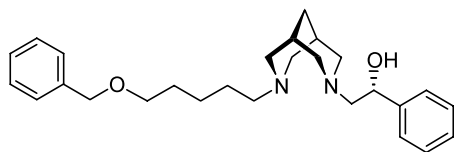
$[\alpha]_D^{20} +36$ (c 0.33, EtOH)

Source of chirality: (*S*)-2-ethyloxirane

Absolute configuration: *S*

Giordano Lesma,* Bruno Danieli, Daniele Passarella,
Alessandro Sacchetti and Alessandra Silvani*

Tetrahedron: Asymmetry 14 (2003) 2453



(*R*)-2-[7-(5-Benzyloxypentyl)-3,7-diazabicyclo[3.3.1]non-3-yl]-1-phenylethanol

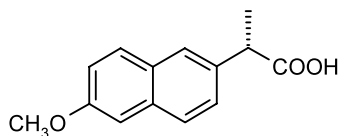
$[\alpha]_D^{20} = -82$ (*c* 0.33, EtOH)

Source of chirality: (*R*)-2-phenyloxirane

Absolute configuration: *R*

Surrinder Koul, Rajinder Parshad, Subhash C. Taneja* and
Ghulam N. Qazi

Tetrahedron: Asymmetry 14 (2003) 2459



(*S*)-(+)-6-Methoxy- α -methyl-2-naphthaleneacetic acid

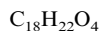
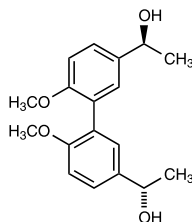
Ee >99% (chiral HPLC)

$[\alpha]_D = +66.6$ (*c* 1, CHCl₃)

Source of chirality: enzyme-catalysed hydrolysis

Giovanna Delogu,* Maria Antonietta Dettori, Angela Patti,*
Sonia Pedotti, Alessandra Forni and Gianluigi Casalone

Tetrahedron: Asymmetry 14 (2003) 2467



(1*S*,1'*S*)-1,1'-(6,6'-Dimethoxy-1,1'-biphenyl-3,3'-diyl)diethanol

E.e. >99%, 94:6 diastereoisomeric ratio

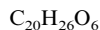
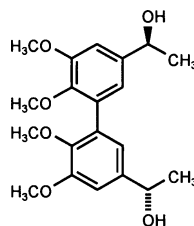
$[\alpha]_D^{25} = -35.2$ (*c* 0.25, CHCl₃)

Source of chirality: asymmetric reduction

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

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Sonia Pedotti, Alessandra Forni and Gianluigi Casalone

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(1*S*,1'*S*)-1,1'-(5,5',6,6'-Tetramethoxy-1,1'-biphenyl-3,3'-diyl)diethanol

E.e. >99%, 94:6 diastereoisomeric ratio

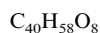
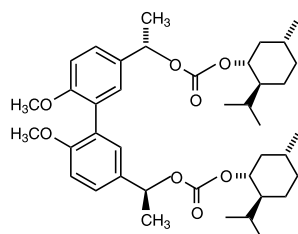
$[\alpha]_D^{25} = -29.6$ (*c* 0.66, CHCl₃)

Source of chirality: asymmetric reduction

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

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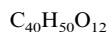
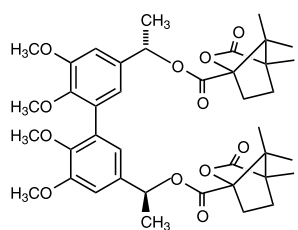


(1*S*,1'*S*)-1,1'-(6,6'-Dimethoxy-1,1'-biphenyl-3,3'-diyl)diethanol-bis(1*R*,2*S*,5*R*)-menthylcarbonate

E.e. >99%, 94:6 diastereoisomeric ratio
 $[\alpha]_D^{22} = -68.5$ (*c* 0.87, $CHCl_3$)
 Source of chirality: asymmetric reduction
 Absolute configuration: 1*S*,1'*S*

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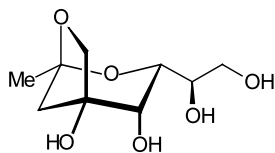


(1*S*,1'*S*)-1,1'-(5,5',6,6'-Tetramethoxy-1,1'-biphenyl-3,3'-diyl)diethanol-bis(1*S*,4*R*)-camphanate ester

E.e. >99%
 $[\alpha]_D^{22} = -52.5$ (*c* 0.86, $CHCl_3$)
 Source of chirality: asymmetric reduction
 Absolute configuration: 1*S*,1'*S*

Siegfried Peters, Frieder W. Lichtenthaler* and Hans J. Lindner

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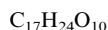
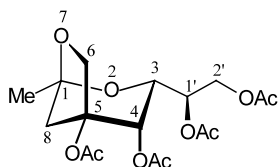


3*R*-[1'*R*,2'-Di-hydroxyethyl]-1*S*-methyl-2,7-dioxabicyclo[3.2.1]octane-4*S*,5*S*-diol

$[\alpha]_D^{20} = -27.4$ (*c* 1.0, MeOH)
 Source of chirality: D-fructose

Siegfried Peters, Frieder W. Lichtenthaler* and Hans J. Lindner

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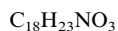
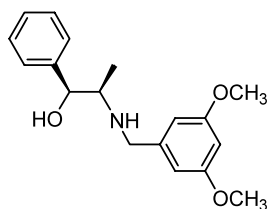


4*S*,5*S*-Bis-acetoxy-3*R*-[1'*R*,2'-bis-acetoxyethyl]-1*S*-methyl-2,7-dioxabicyclo[3.2.1]octane

Mp = 95–97°C
 $[\alpha]_D^{20} = +1.1$ (*c* 1.0, $CHCl_3$)
 Source of chirality: D-fructose

Pei Nian Liu, Ying Chun Chen, Xue Qiang Li, Yong Qiang Tu* and Jin Gen Deng*

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(1*S*,2*R*)-*N*-(3,5-Dimethoxy)benzyl-2-amino-1-phenyl-1-propanol

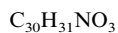
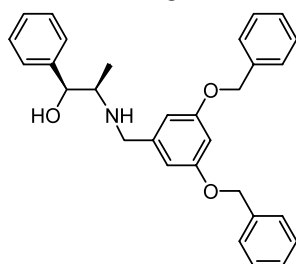
$[\alpha]_D^{23} = -14.0$ (*c* 0.2, acetone)

Source of chirality: (1*S*,2*R*)-norephedrine

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

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(1*S*,2*R*)-*N*-(3,5-Dibenzyloxy)benzyl-2-amino-1-phenyl-1-propanol

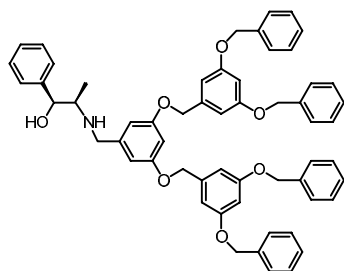
$[\alpha]_D^{23} = -8.2$ (*c* 0.5, acetone)

Source of chirality: (1*S*,2*R*)-norephedrine

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

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(1*S*,2*R*)-*N*-[3,5-Di(3,5-dibenzyloxy)benzyloxy]benzyl-2-amino-1-phenyl-1-propanol

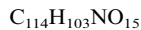
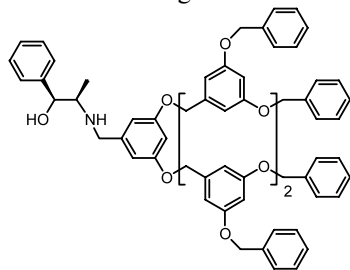
$[\alpha]_D^{23} = -4.1$ (*c* 0.5, acetone)

Source of chirality: (1*S*,2*R*)-norephedrine

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

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(1*S*,2*R*)-*N*-[3,5-Di[3,5-di(3,5-dibenzyloxy)benzyloxy]benzyloxy]benzyl-2-amino-1-phenyl-1-propanol

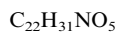
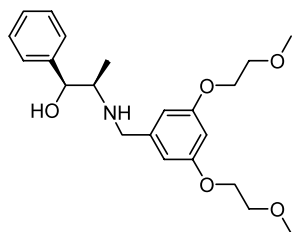
$[\alpha]_D^{23} = +2.0$ (*c* 0.6, CH_2Cl_2)

Source of chirality: (1*S*,2*R*)-norephedrine

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

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and Jin Gen Deng*

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(1*S*,2*R*)-*N*-[3,5-Di(2-methoxyethoxy)]benzyl-2-amino-1-phenyl-1-propanol

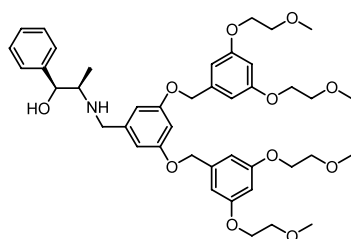
$[\alpha]_D^{23} = -7.9$ (c 0.6, EtOH)

Source of chirality: (1*S*,2*R*)-norephedrine

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

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and Jin Gen Deng*

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(1*S*,2*R*)-*N*-[3,5-Di[3,5-di(2-methoxyethoxy)]benzyloxy]benzyl-2-amino-1-phenyl-1-propanol

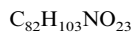
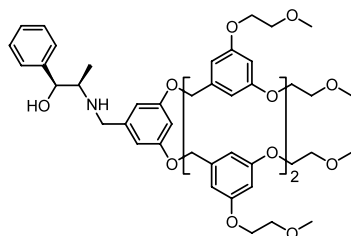
$[\alpha]_D^{23} = +3.5$ (c 1.0, CH_2Cl_2)

Source of chirality: (1*S*,2*R*)-norephedrine

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

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and Jin Gen Deng*

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(1*S*,2*R*)-*N*-[3,5-Di[3,5-di[3,5-di(2-methoxyethoxy)]benzyloxy]benzyloxy]benzyl-2-amino-1-phenyl-1-propanol

$[\alpha]_D^{23} = +2.0$ (c 1.5, CH_2Cl_2)

Source of chirality: (1*S*,2*R*)-norephedrine

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