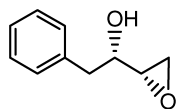


## Stereochemistry abstracts

Rodney A. Fernandes

*Tetrahedron: Asymmetry 19 (2008) 15*



$C_{10}H_{12}O_2$

(+)-(2*S*,3*S*)-1,2-Epoxy-4-phenylbutan-3-ol

Ee = 95%

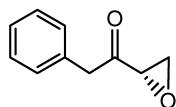
$[\alpha]_D^{20} = +6.42$  (*c* 1.8,  $CHCl_3$ )

Source of chirality: asymmetric dihydroxylation

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

Rodney A. Fernandes

*Tetrahedron: Asymmetry 19 (2008) 15*



$C_{10}H_{10}O_2$

(-)-(2*S*)-1,2-Epoxy-4-phenylbutan-3-one

Ee = 95%

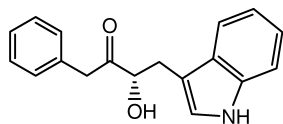
$[\alpha]_D^{20} = -36.4$  (*c* 1.5,  $CHCl_3$ )

Source of chirality: enantiopure reactant

Absolute configuration: (2*S*)

Rodney A. Fernandes

*Tetrahedron: Asymmetry 19 (2008) 15*



$C_{18}H_{17}NO_2$

(+)-(S)-3-Hydroxy-4-(1*H*-indol-3-yl)-1-phenylbutan-2-one

Ee = 95%

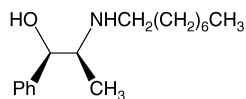
$[\alpha]_D^{20} = +30.7$  (*c* 0.15,  $CHCl_3$ )

Source of chirality: enantiopure reactant

Absolute configuration: (3*S*)

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



$C_{17}H_{29}NO$

(1*R*,2*S*)-2-(*n*-Octylamino)-1-phenylpropan-1-ol

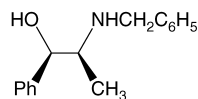
$[\alpha]_D^{25} = +15.1$  (*c* 0.12,  $CHCl_3$ )

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



(1*R*,2*S*)-2-(Benzylamino)-1-phenyl-1-propanol

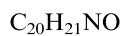
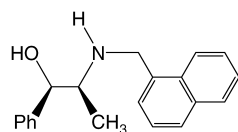
$$[\alpha]_D^{25} = +10.3 \text{ (} c \text{ 1.28, CHCl}_3 \text{)}$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



(1*R*,2*S*)-2-(Naphthalen-1'-ylmethylamino)-1-phenylpropan-1-ol

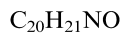
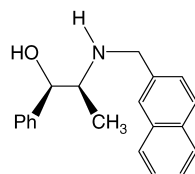
$$[\alpha]_D^{26} = -28.2 \text{ (} c \text{ 0.59, CHCl}_3 \text{)}$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



(1*R*,2*S*)-2-(Naphthalen-2'-ylmethylamino)-1-phenylpropan-1-ol

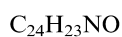
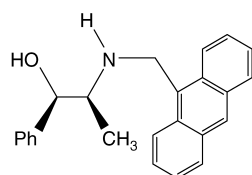
$$[\alpha]_D^{25} = -11.4 \text{ (} c \text{ 0.64, CHCl}_3 \text{)}$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



(1*R*,2*S*)-2-(Anthracen-9'-ylmethylamino)-1-phenylpropan-1-ol

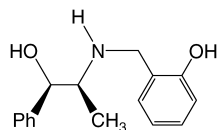
$$[\alpha]_D^{25} = -71.5 \text{ (} c \text{ 0.55, CHCl}_3 \text{)}$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



2-[(1*R*,2*S*)-1-Hydroxyl-1-phenylpropan-2-ylamino]methyl phenol

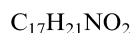
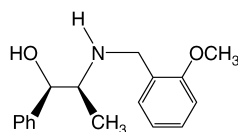
$$[\alpha]_D^{25} = +11.2 (c\ 0.57, CHCl_3)$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



(1*R*,2*S*)-2-(2'-Methoxybenzylamino)-1-phenylpropan-1-ol

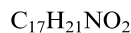
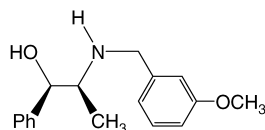
$$[\alpha]_D^{25} = -17.6 (c\ 0.62, CHCl_3)$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



(1*R*,2*S*)-2-(3'-Methoxybenzylamino)-1-phenylpropan-1-ol

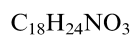
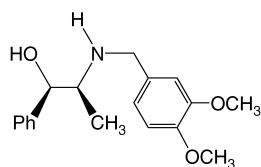
$$[\alpha]_D^{25} = -11.9 (c\ 0.63, CHCl_3)$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



(1*R*,2*S*)-2-(3',4'-Dimethoxybenzylamino)-1-phenylpropan-1-ol

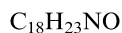
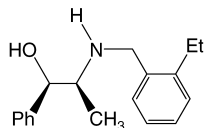
$$[\alpha]_D^{25} = -11.2 (c\ 0.60, CHCl_3)$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



(1*R*,2*S*)-2-(2'-Ethylbenzylamino)-1-phenylpropan-1-ol

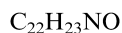
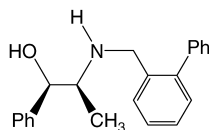
$$[\alpha]_D^{25} = -22.2 \text{ (} c \text{ 0.43, CHCl}_3 \text{)}$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



(1*R*,2*S*)-2-(*o*-Biphenylmethylamino)-1-phenylpropan-1-ol

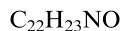
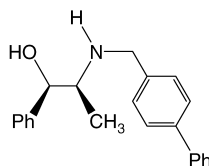
$$[\alpha]_D^{25} = -12.7 \text{ (} c \text{ 0.51, CHCl}_3 \text{)}$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



(1*R*,2*S*)-2-(*p*-Biphenylmethylamino)-1-phenylpropan-1-ol

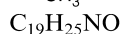
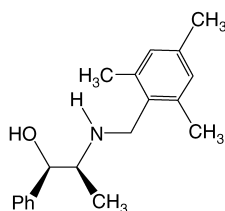
$$[\alpha]_D^{25} = -22.9 \text{ (} c \text{ 0.61, CHCl}_3 \text{)}$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



(1*R*,2*S*)-1-Phenyl-2-(2',4',6'-trimethylbenzylamino)propan-1-ol

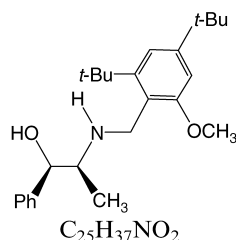
$$[\alpha]_D^{25} = -32.7 \text{ (} c \text{ 0.61, CHCl}_3 \text{)}$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



$C_{25}H_{37}NO_2$   
(1*R*,2*S*)-2-(3',5'-Di-*tert*-butyl-2'-methoxybenzylamino)-1-phenylpropan-1-ol

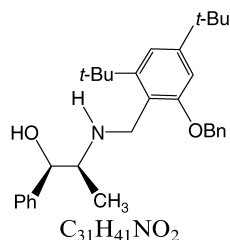
$$[\alpha]_D^{25} = +1.7 (c\ 0.56, CHCl_3)$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



$C_{31}H_{41}NO_2$   
(1*R*,2*S*)-2-(2'-(Benzyloxy)-3',5'-di-*tert*-butyl-2'-methoxybenzylamino)-1-phenylpropan-1-ol

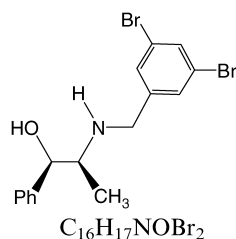
$$[\alpha]_D^{25} = -2.7 (c\ 0.61, CHCl_3)$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



$C_{16}H_{17}NOBr_2$   
(1*R*,2*S*)-2-(3,5-Dibromobenzylamino)-1-phenylpropan-1-ol

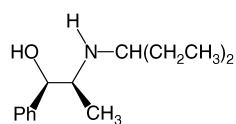
$$[\alpha]_D^{25} = -5.4 (c\ 0.81, CHCl_3)$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



$C_{14}H_{23}NO$   
(1*R*,2*S*)-2-(Pentan-3'-ylamino)-1-phenylpropan-1-ol

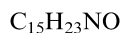
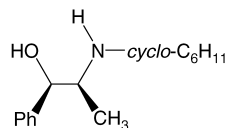
$$[\alpha]_D^{25} = -8.8 (c\ 0.61, CHCl_3)$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



(1*R*,2*S*)-2-Cyclohexylamino-1-phenyl-1-propanol

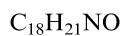
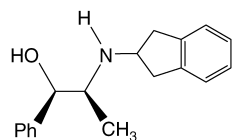
$$[\alpha]_D^{25} = +8.1 \text{ (} c \text{ 0.60, CHCl}_3 \text{)}$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



(1*R*,2*S*)-2-(2,3-Dihydro-1*H*-inden-2-ylamino)-1-phenylpropan-1-ol

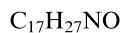
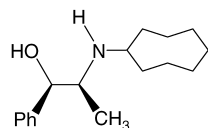
$$[\alpha]_D^{25} = -22.2 \text{ (} c \text{ 0.18, CHCl}_3 \text{)}$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



(1*R*,2*S*)-2-(Cyclooctylamino)-1-phenylpropan-1-ol

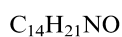
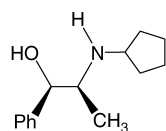
$$[\alpha]_D^{25} = +27.7 \text{ (} c \text{ 0.10, CHCl}_3 \text{)}$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



(1*R*,2*S*)-2-(Cyclopentylamino)-1-phenylpropan-1-ol

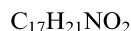
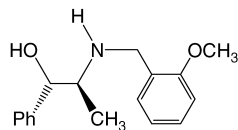
$$[\alpha]_D^{25} = -2.8 \text{ (} c \text{ 0.70, CHCl}_3 \text{)}$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



(1*S*,2*S*)-2-(2'-Methoxybenzylamino)-1-phenylpropan-1-ol

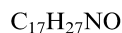
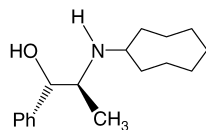
$$[\alpha]_D^{25} = +87.1 (c\ 0.64, CHCl_3)$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



(1*S*,2*S*)-2-(Cyclooctylamino)-1-phenylpropan-1-ol

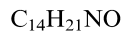
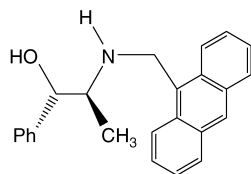
$$[\alpha]_D^{25} = +84.8 (c\ 0.91, CHCl_3)$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



(1*R*,2*S*)-2-(Cyclopentylamino)-1-phenylpropan-1-ol

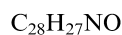
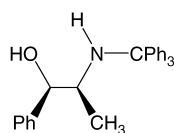
$$[\alpha]_D^{25} = +133.9 (c\ 0.66, CHCl_3)$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



(1*R*,2*S*)-1-Phenyl-2-(tritylamino)propan-1-ol

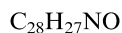
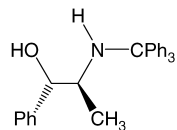
$$[\alpha]_D^{25} = +74.5 (c\ 0.64, CHCl_3)$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



(1*S*,2*S*)-1-Phenyl-2-(tritylamino)propan-1-ol

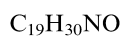
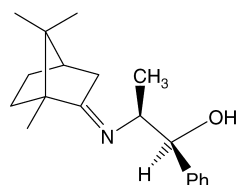
$$[\alpha]_D^{25} = -0.2 \text{ (} c \text{ 0.72, CHCl}_3 \text{)}$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



(1*S*,2*S*)-1-Phenyl-2-(1,7,7-trimethylbicyclo[2.2.1]heptan-2-ylideneamino)-1-propanol

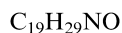
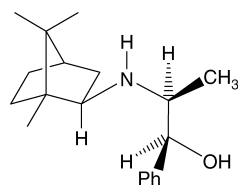
$$[\alpha]_D^{25} = +90.3 \text{ (} c \text{ 1.0, CHCl}_3 \text{)}$$

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

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

Raleigh W. Parrott, II and Shawn R. Hitchcock\*

*Tetrahedron: Asymmetry 19 (2008) 19*



(1*S*,2*S*)-1-Phenyl-2-(1,7,7-trimethylbicyclo[2.2.1]heptan-2-ylamino)-1-propanol

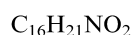
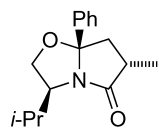
$$[\alpha]_D^{25} = +144.4 \text{ (} c \text{ 1.0, CHCl}_3 \text{)}$$

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

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

Paul T. Buonora,\* Qun Zhang, Jennifer Sawko and Larry J. Westrum

*Tetrahedron: Asymmetry 19 (2008) 27*



(3*S*,6*S*,7*aS*)-Tetrahydro-6-methyl-3-(1-methylethyl)-7a-phenyl-pyrrolo[2,1-b]oxazol-5(6*H*)-one

$$[\alpha]_D^{22.2} = +37.1 \text{ (} c \text{ 1.7, CHCl}_3 \text{)}$$

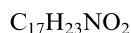
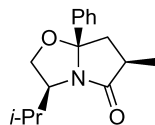
Source of chirality: (*S*)-valinol

Absolute configuration: (3*S*,6*S*,7*aS*)



Paul T. Buonora,\* Qun Zhang, Jennifer Sawko and Larry J. Westrum

*Tetrahedron: Asymmetry 19 (2008) 27*



(3*S*,6*R*,7*aS*)-Tetrahydro-6-methyl-3-(1-methylethyl)-7a-phenyl-pyrrolo[2,1-*b*]oxazol-5(6*H*)-one

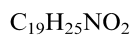
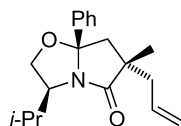
$$[\alpha]_D^{22.2} = +41.2 (c\ 1.7, CHCl_3)$$

Source of chirality: (*S*)-valinol

Absolute configuration: (3*S*,6*R*,7*aS*)

Paul T. Buonora,\* Qun Zhang, Jennifer Sawko and Larry J. Westrum

*Tetrahedron: Asymmetry 19 (2008) 27*



(3*S*,6*S*,7*aS*)-Tetrahydro-6-(2-propenyl)-6-methyl-3-(1-methylethyl)-7a-phenyl-pyrrolo[2,1-*b*]oxazol-5(6*H*)-one

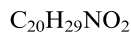
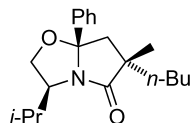
$$[\alpha]_D^{21.6} = +2.5 (c\ 1.44, CHCl_3)$$

Source of chirality: (*S*)-valinol

Absolute configuration: (3*S*,6*S*,7*aS*)

Paul T. Buonora,\* Qun Zhang, Jennifer Sawko and Larry J. Westrum

*Tetrahedron: Asymmetry 19 (2008) 27*



(3*S*,6*S*,7*aS*)-Tetrahydro-6-butyl-6-methyl-3-(1-methylethyl)-7a-phenyl-pyrrolo[2,1-*b*]oxazol-5(6*H*)-one

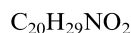
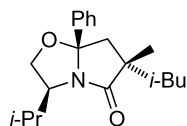
$$[\alpha]_D^{20.6} = +4.5 (c\ 1.7, CHCl_3)$$

Source of chirality: (*S*)-valinol

Absolute configuration: (3*S*,6*S*,7*aS*)

Paul T. Buonora,\* Qun Zhang, Jennifer Sawko and Larry J. Westrum

*Tetrahedron: Asymmetry 19 (2008) 27*



(3*S*,6*S*,7*aS*)-Tetrahydro-6-methyl-3-(1-methylethyl)-6-(2-methylpropyl)-7a-phenyl-pyrrolo[2,1-*b*]oxazol-5(6*H*)-one

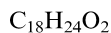
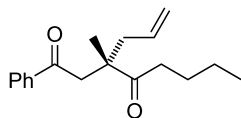
$$[\alpha]_D^{20.7} = +6.9 (c\ 1.5, CHCl_3)$$

Source of chirality: (*S*)-valinol

Absolute configuration: (3*S*,6*S*,7*aS*)

Paul T. Buonora,\* Qun Zhang, Jennifer Sawko and Larry J. Westrum

*Tetrahedron: Asymmetry 19 (2008) 27*



(3*S*)-3-Methyl-3-(2-propenyl)-1-phenyl-1,4-octanedione

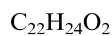
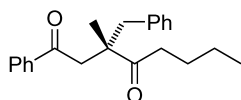
$$[\alpha]_D^{20.6} = +36.8 \text{ (} c \text{ 0.7, CHCl}_3 \text{)}$$

Source of chirality: (*S*)-valinol

Absolute configuration: (3*S*)

Paul T. Buonora,\* Qun Zhang, Jennifer Sawko and Larry J. Westrum

*Tetrahedron: Asymmetry 19 (2008) 27*



(3*S*)-3-Methyl-3-(2-phenylmethyl)-1-phenyl-1,4-octanedione

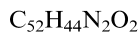
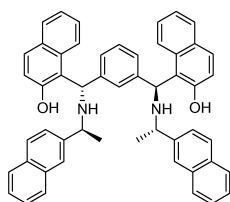
$$[\alpha]_D^{20.6} = -20.6 \text{ (} c \text{ 2.8, CHCl}_3 \text{)}$$

Source of chirality: (*S*)-valinol

Absolute configuration: (3*S*)

Fengnian Ma, Xiumin Shen, Jie Ou-Yang, Zhiwei Deng and Cong Zhang\*

*Tetrahedron: Asymmetry 19 (2008) 31*



1,1'-[1,3-Phenylenebis[(*S*)-[(1*S*)-1-(2-naphthyl)ethyl]amino]methylene]]bis-(2-naphthalenol)

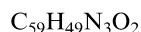
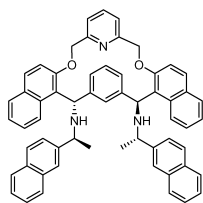
$$[\alpha]_D^{20} = +280.0 \text{ (} c \text{ 0.51, THF)}$$

Source of chirality: (*S*)- $\alpha$ -(2-naphthyl)-ethylamine

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

Fengnian Ma, Xiumin Shen, Jie Ou-Yang, Zhiwei Deng and Cong Zhang\*

*Tetrahedron: Asymmetry 19 (2008) 31*



(12*S*,18*S*)-N12,N18-Bis[(1*S*)-1-(2-naphthyl)ethyl]-{2*H*,8*H*,12*H*,18*H*-13,17-metheno-3,7-nitrilo-dinaphtho[2,1-*j*:1',2'-*s*][1,9]-dioxacycloicosin-12,18-diamine}

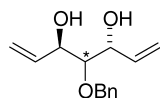
$$[\alpha]_D^{20} = +19.6 \text{ (} c \text{ 0.23, THF)}$$

Source of chirality: (*S*)- $\alpha$ -(2-naphthyl)-ethylamine

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

Peter Kapitán and Tibor Gracza\*

*Tetrahedron: Asymmetry 19 (2008) 38*



$C_{14}H_{18}O_3$

(3*R*,5*R*)-4-Benzyloxyhepta-1,6-diene-3,5-diol

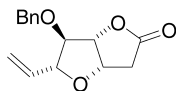
$[\alpha]_D^{20} = +45$  (*c* 0.50,  $CHCl_3$ )

Source of chirality: D-arabitol as starting material

Absolute configuration: (3*R*,5*R*), (D-*arabino*)

Peter Kapitán and Tibor Gracza\*

*Tetrahedron: Asymmetry 19 (2008) 38*



$C_{15}H_{16}O_4$

(1*R*,5*S*,7*R*,8*R*)-8-Benzyloxy-7-vinyl-2,6-dioxabicyclo[3.3.0]octan-3-one

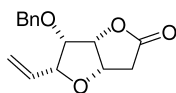
$[\alpha]_D^{20} = -29$  (*c* 1.46,  $CHCl_3$ )

Source of chirality: D-arabitol as starting material

Absolute configuration: (1*R*,5*S*,7*R*,8*R*), (D-*gluco*)

Peter Kapitán and Tibor Gracza\*

*Tetrahedron: Asymmetry 19 (2008) 38*



$C_{15}H_{16}O_4$

(1*R*,5*S*,7*R*,8*S*)-8-Benzyloxy-7-vinyl-2,6-dioxabicyclo[3.3.0]octan-3-one

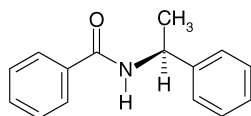
$[\alpha]_D^{20} = -74$  (*c* 0.15,  $CHCl_3$ )

Source of chirality: D-arabitol as starting material

Absolute configuration: (1*R*,5*S*,7*R*,8*S*), (D-*galacto*)

Anil V. Karnik\* and Suchitra S. Kamath

*Tetrahedron: Asymmetry 19 (2008) 45*



$C_{15}H_{15}NO$

(*S*)-*N*-Benzoyl-1-phenylethylamine

Ee = 89.9%

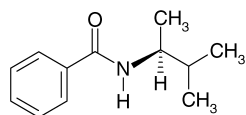
$[\alpha]_D^{19} = -17.9$  (*c* 1,  $CHCl_3$ )

Source of chirality: kinetic resolution

Absolute configuration: (*S*)

Anil V. Karnik\* and Suchitra S. Kamath

*Tetrahedron: Asymmetry 19 (2008) 45*



$C_{12}H_{17}NO$

(*S*)-*N*-Benzoyl-3-methyl-2-butylamine

Ee = 82.8%

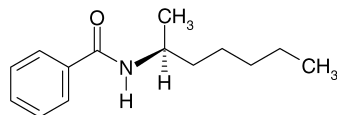
$[\alpha]_D^{19} = +12.4$  (*c* 1,  $CHCl_3$ )

Source of chirality: kinetic resolution

Absolute configuration: (*S*)

Anil V. Karnik\* and Suchitra S. Kamath

*Tetrahedron: Asymmetry 19 (2008) 45*



$C_{14}H_{21}NO$

(*S*)-*N*-Benzoyl-2-heptylamine

Ee = 83.2%

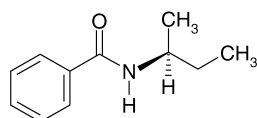
$[\alpha]_D^{19} = +14.6$  (*c* 1,  $CHCl_3$ )

Source of chirality: kinetic resolution

Absolute configuration: (*S*)

Anil V. Karnik\* and Suchitra S. Kamath

*Tetrahedron: Asymmetry 19 (2008) 45*



$C_{11}H_{15}NO$

(*S*)-*N*-Benzoyl-2-butylamine

Ee = 83.3%

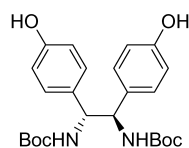
$[\alpha]_D^{19} = +12.5$  (*c* 1,  $CHCl_3$ )

Source of chirality: kinetic resolution

Absolute configuration: (*S*)

Miyuki Takahashi, Naoki Haraguchi and Shinichi Itsuno\*

*Tetrahedron: Asymmetry 19 (2008) 60*



$C_{24}H_{23}N_2O_6$

(*R,R*)-*N,N'*-DiBoc-1,2-bis(*p*-hydroxyphenyl)-1,2-diaminoethane

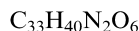
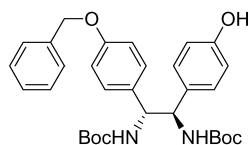
$[\alpha]_D = -3.8$  (*c* 1.07,  $CH_3OH$ )

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

Source of chirality: optical resolution

Miyuki Takahashi, Naoki Haraguchi and Shinichi Itsuno\*

*Tetrahedron: Asymmetry 19 (2008) 60*



(*R,R*)-*N,N'*-DiBoc-1-(*p*-hydroxyphenyl)-2-(*p*-benzyloxyphenyl)-1,2-diaminoethane

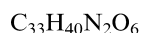
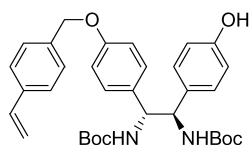
$[\alpha]_D = -15.0$  (*c* 1.00,  $CHCl_3$ )

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

Source of chirality: (*R,R*)-*N,N'*-diBoc-1,2-bis-(*p*-hydroxyphenyl)-1,2-diaminoethane

Miyuki Takahashi, Naoki Haraguchi and Shinichi Itsuno\*

*Tetrahedron: Asymmetry 19 (2008) 60*



(*R,R*)-*N,N'*-DiBoc-1-(*p*-hydroxyphenyl)-2-(*p*-(*p*-vinylbenzyloxy)phenyl)-1,2-diaminoethane

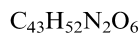
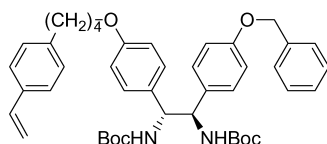
$[\alpha]_D = -15.7$  (*c* 1.00,  $CHCl_3$ )

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

Source of chirality: (*R,R*)-*N,N'*-diBoc-1,2-bis-(*p*-hydroxyphenyl)-1,2-diaminoethanes

Miyuki Takahashi, Naoki Haraguchi and Shinichi Itsuno\*

*Tetrahedron: Asymmetry 19 (2008) 60*



(*R,R*)-*N,N'*-DiBoc-1-(*p*-(*p*-benzyloxy)phenyl)-2-(*p*-(*p*-vinylphenylbutyloxy)-phenyl)-1,2-diaminoethane

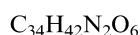
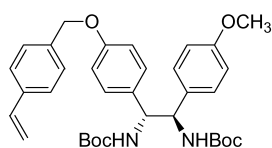
$[\alpha]_D = -1.9$  (*c* 1.00,  $CHCl_3$ )

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

Source of chirality: (*R,R*)-*N,N'*-diBoc-1,2-bis-(*p*-hydroxyphenyl)-1,2-diaminoethane

Miyuki Takahashi, Naoki Haraguchi and Shinichi Itsuno\*

*Tetrahedron: Asymmetry 19 (2008) 60*



(*R,R*)-*N,N'*-DiBoc-1-(*p*-methoxyphenyl)-2-(*p*-(*p*-vinylbenzyloxy)phenyl)-1,2-diaminoethane

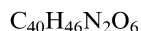
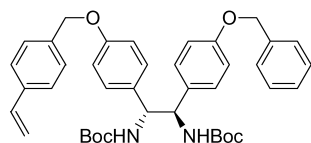
$[\alpha]_D = -4.2$  (*c* 1.00,  $CHCl_3$ )

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

Source of chirality: (*R,R*)-*N,N'*-diBoc-1,2-bis-(*p*-hydroxyphenyl)-1,2-diaminoethane

Miyuki Takahashi, Naoki Haraguchi and Shinichi Itsuno\*

*Tetrahedron: Asymmetry 19 (2008) 60*



(*R,R*)-*N,N'*-DiBoc-1-(*p*-(*p*-benzyloxy)phenyl)-2-(*p*-(*p*-vinylbenzyloxy)phenyl)-1,2-diaminoethane

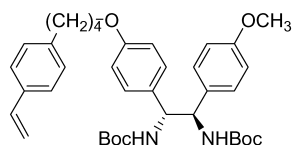
$[\alpha]_D = -4.1$  (*c* 0.90,  $CHCl_3$ )

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

Source of chirality: (*R,R*)-*N,N'*-diBoc-1,2-bis-(*p*-hydroxyphenyl)-1,2-diaminoethane

Miyuki Takahashi, Naoki Haraguchi and Shinichi Itsuno\*

*Tetrahedron: Asymmetry 19 (2008) 60*



(*R,R*)-*N,N'*-DiBoc-1-(*p*-methoxyphenyl)-2-(*p*-(*p*-vinylphenylbutyloxy)phenyl)-1,2-diaminoethane

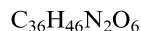
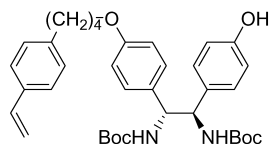
$[\alpha]_D = -6.5$  (*c* 1.00,  $CHCl_3$ )

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

Source of chirality: (*R,R*)-*N,N'*-diBoc-1,2-bis-(*p*-hydroxyphenyl)-1,2-diaminoethane

Miyuki Takahashi, Naoki Haraguchi and Shinichi Itsuno\*

*Tetrahedron: Asymmetry 19 (2008) 60*



(*R,R*)-*N,N'*-DiBoc-1-(*p*-hydroxyphenyl)-2-(*p*-(*p*-vinylphenylbutyloxy)phenyl)-1,2-diaminoethane

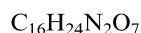
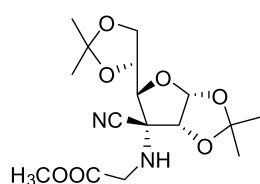
$[\alpha]_D = -9.6$  (*c* 1.00,  $CHCl_3$ )

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

Source of chirality: (*R,R*)-*N,N'*-diBoc-1,2-bis-(*p*-hydroxyphenyl)-1,2-diaminoethane

Hélène Ducatel, Albert Nguyen Van Nhien and Denis Postel\*

*Tetrahedron: Asymmetry 19 (2008) 67*



3-*C*-Cyano-3-deoxy-1,2:5,6-di-*O*-isopropylidene-3-[[[methoxycarbonyl)methyl]amino]- $\alpha$ -D-allofuranose

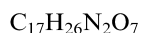
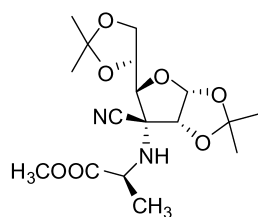
$[\alpha]_D^{25} = +30.8$  (*c* 1.20,  $CHCl_3$ )

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*)

Hélène Ducatel, Albert Nguyen Van Nhien and Denis Postel\*

*Tetrahedron: Asymmetry 19 (2008) 67*



3-C-Cyano-3-deoxy-1,2:5,6-di-O-isopropylidene-3-[[*(S)*]-1-(methoxycarbonyl)ethyl]amino]- $\alpha$ -D-allofuranose

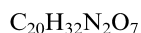
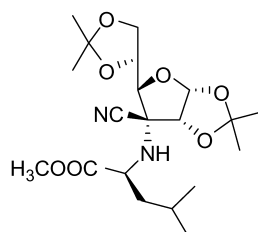
$$[\alpha]_D^{25} = +8.8 \text{ (} c \text{ 1.09, CHCl}_3 \text{)}$$

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*,*S*)

Hélène Ducatel, Albert Nguyen Van Nhien and Denis Postel\*

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3-C-Cyano-3-deoxy-1,2:5,6-di-O-isopropylidene-3-[[*(S)*]-1-(methoxycarbonyl)-3-methyl butyl]amino]- $\alpha$ -D-allofuranose

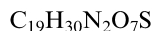
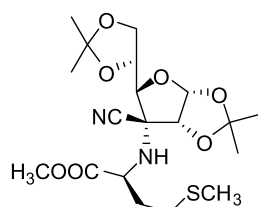
$$[\alpha]_D^{20} = -2.0 \text{ (} c \text{ 1.00, CHCl}_3 \text{)}$$

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*,*S*)

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3-C-Cyano-3-deoxy-1,2:5,6-di-O-isopropylidene-3-[[*(S)*]-1-(methoxycarbonyl)-3-methyl thio-propyl]amino]- $\alpha$ -D-allofuranose

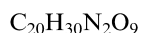
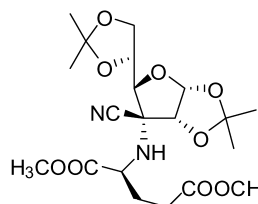
$$[\alpha]_D^{20} = +8.0 \text{ (} c \text{ 1.60, CHCl}_3 \text{)}$$

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*,*S*)

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3-C-Cyano-3-deoxy-1,2:5,6-di-O-isopropylidene-3-[[*(S)*]-1,3-di-(methoxycarbonyl)propyl]amino]- $\alpha$ -D-allofuranose

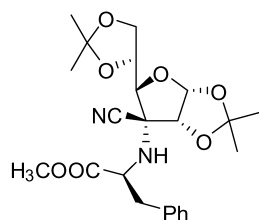
$$[\alpha]_D^{20} = +22.0 \text{ (} c \text{ 1.55, CHCl}_3 \text{)}$$

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*,*S*)

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$C_{23}H_{30}N_2O_7$

3-C-Cyano-3-deoxy-1,2:5,6-di-*O*-isopropylidene-3-[[*(S)*]-1-(methoxycarbonyl)-2-phenylethyl]amino]- $\alpha$ -D-allofuranose

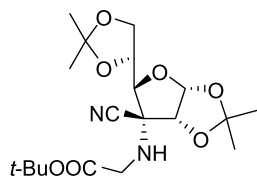
$[\alpha]_D^{20} = +16$  (*c* 0.21,  $CHCl_3$ )

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*,*S*)

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$C_{19}H_{30}N_2O_7$

3-C-Cyano-3-deoxy-1,2:5,6-di-*O*-isopropylidene-3-[[*(tert)*-butoxycarbonyl]methyl]amino]- $\alpha$ -D-allofuranose

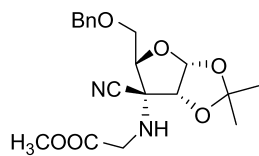
$[\alpha]_D^{28} = +18.7$  (*c* 0.33,  $CHCl_3$ )

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*)

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$C_{19}H_{24}N_2O_6$

5-*O*-Benzyl-3-*C*-cyano-3-deoxy-1,2-*O*-isopropylidene-3-[[*(S)*]-1-(methoxycarbonyl)methyl]amino]- $\alpha$ -D-ribofuranose

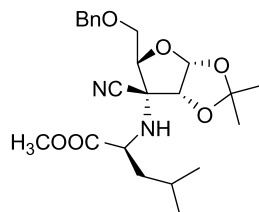
$[\alpha]_D^{29} = +29.6$  (*c* 0.63,  $CHCl_3$ )

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*)

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$C_{23}H_{32}N_2O_6$

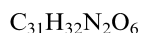
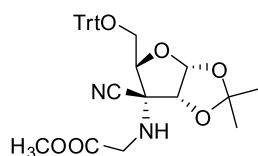
5-*O*-Benzyl-3-*C*-cyano-3-deoxy-1,2-*O*-isopropylidene-3-[[*(S)*]-1-(methoxycarbonyl)-3-methylbutyl]amino]- $\alpha$ -D-ribofuranose

$[\alpha]_D^{20} = -11.0$  (*c* 1.80,  $CHCl_3$ )

Source of chirality: chemical reaction

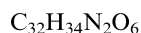
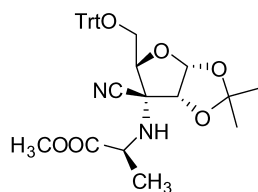
Absolute configuration: (1*R*,2*R*,3*R*,4*R*,*S*)



3-C-Cyano-3-deoxy-1,2-O-isopropylidene-3-[(methoxycarbonyl)methyl]amino]-5-O-trityl- $\alpha$ -D-ribofuranose

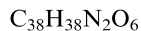
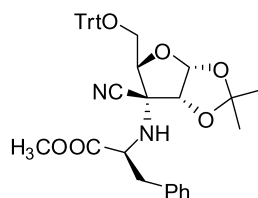
$$[\alpha]_{\text{D}}^{25} = +20.6 \text{ (c 1.00, CHCl}_3\text{)}$$

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*)3-C-Cyano-3-deoxy-1,2-O-isopropylidene-3-[(*S*)-1-(methoxycarbonyl)ethyl]amino]-5-O-trityl- $\alpha$ -D-ribofuranose

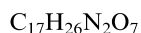
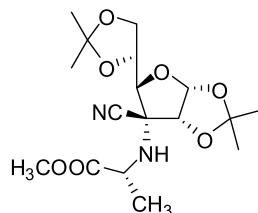
$$[\alpha]_{\text{D}}^{25} = -24.9 \text{ (c 1.18, CHCl}_3\text{)}$$

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,*S*)3-C-Cyano-3-deoxy-1,2-O-isopropylidene-3-[(*S*)-1-(methoxycarbonyl)-2-phenylethyl] amino]-5-O-trityl- $\alpha$ -D-ribofuranose

$$[\alpha]_{\text{D}}^{20} = +32.0 \text{ (c 0.21, CHCl}_3\text{)}$$

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,*S*)3-C-Cyano-3-deoxy-1,2:5,6-di-O-isopropylidene-3-[(*R*)-1-(methoxycarbonyl)ethyl]amino]- $\alpha$ -D-allofuranose

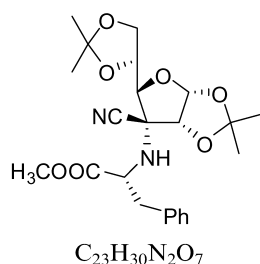
$$[\alpha]_{\text{D}}^{20} = +30 \text{ (c 0.26, CHCl}_3\text{)}$$

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*,*R*)

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3-C-Cyano-3-deoxy-1,2:5,6-di-*O*-isopropylidene-3-[[*(R)*]-1-(methoxycarbonyl)-2-phenylethyl]amino]- $\alpha$ -D-allofuranose

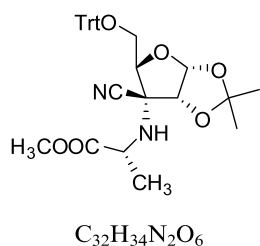
$[\alpha]_D^{20} = -36.6$  (*c* 0.50,  $CHCl_3$ )

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*,*R*)

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3-C-Cyano-3-deoxy-1,2-*O*-isopropylidene-3-[[*(R)*]-1-(methoxycarbonyl)ethyl]amino]-5-*O*-trityl- $\alpha$ -D-ribofuranose

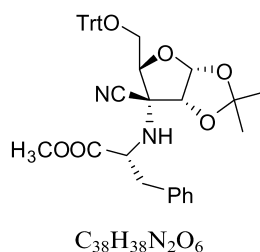
$[\alpha]_D^{20} = +36.2$  (*c* 0.50,  $CHCl_3$ )

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,*R*)

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3-C-Cyano-3-deoxy-1,2-*O*-isopropylidene-3-[[*(R)*]-1-(methoxycarbonyl)-2-phenylethyl]amino]-5-*O*-trityl- $\alpha$ -D-ribofuranose

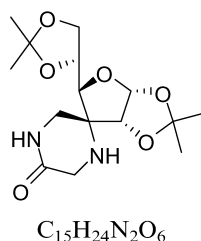
$[\alpha]_D^{20} = -22.0$  (*c* 0.17,  $CHCl_3$ )

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,*R*)

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(3*R*)-1,2:5,6-Di-*O*-isopropylidenespiro[3-deoxy- $\alpha$ -D-ribo-hexofuranose-3,5'-piperazine]-2'-one

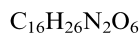
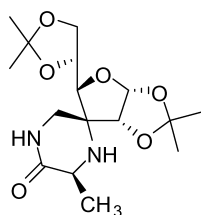
$[\alpha]_D^{25} = +67.8$  (*c* 1.19,  $CHCl_3$ )

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*)

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(3*R*,3'*S*)-1,2:5,6-Di-*O*-isopropylidene-3'-methylspiro[3-deoxy- $\alpha$ -D-ribo-hexofuranose-3,5'-piperazine]-2'-one

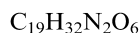
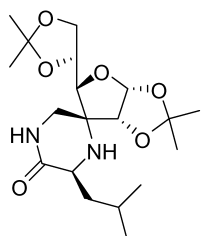
$$[\alpha]_D^{25} = +23.3 \text{ (} c \text{ 0.54, CHCl}_3 \text{)}$$

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*,*S*)

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(3*R*,3'*S*)-3'-Isobutyl-1,2:5,6-di-*O*-isopropylidenespiro[3-deoxy- $\alpha$ -D-ribo-hexofuranose-3,5'-piperazine]-2'-one

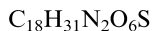
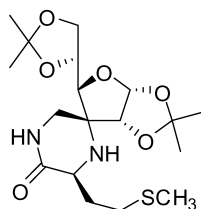
$$[\alpha]_D^{20} = -13.0 \text{ (} c \text{ 1.80, CHCl}_3 \text{)}$$

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*,*S*)

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(3*R*,3'*S*)-1,2:5,6-Di-*O*-isopropylidene-3'-(2-methylthioethyl)spiro[3-desoxy- $\alpha$ -D-ribo-hexofuranose-3,5'-piperazine]-2'-one

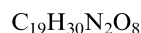
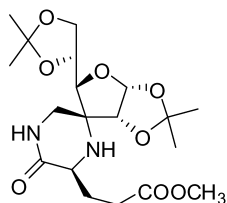
$$[\alpha]_D^{20} = -20.0 \text{ (} c \text{ 1.40, CHCl}_3 \text{)}$$

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*,*S*)

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(3*R*,3'*S*)-1,2:5,6-Di-*O*-isopropylidene-3'-[2-(methoxycarbonyl)ethyl]spiro[3-deoxy- $\alpha$ -D-ribo-hexofuranose-3,5'-piperazine]-2'-one

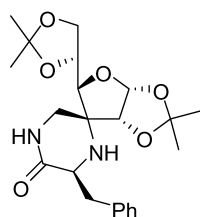
$$[\alpha]_D^{20} = +11 \text{ (} c \text{ 0.17, CHCl}_3 \text{)}$$

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*,*S*)

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$C_{21}H_{28}N_2O_6$

(3*R*,3'*S*)-3'-Benzyl-1,2:5,6-di-*O*-isopropylidenespiro[3-deoxy- $\alpha$ -D-ribo-hexofuranose-3,5'-piperazine]-2'-one

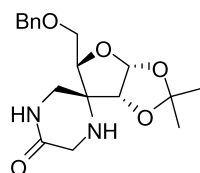
$[\alpha]_D^{20} = +18.0$  (*c* 0.32,  $CHCl_3$ )

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*,*S*)

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$C_{18}H_{24}N_2O_5$

(3*R*)-5-*O*-Benzyl-1,2-*O*-isopropylidenespiro[3-deoxy- $\alpha$ -D-erythro-pentofuranose-3,5'-piperazine]-2'-one

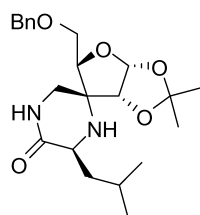
$[\alpha]_D^{29} = +71.6$  (*c* 0.38,  $CHCl_3$ )

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*)

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$C_{22}H_{32}N_2O_5$

(3*R*,3'*S*)-5-*O*-Benzyl-3'-isobutyl-1,2-*O*-isopropylidenespiro[3-deoxy- $\alpha$ -D-erythro-pentofuranose-3,5'-piperazine]-2'-one

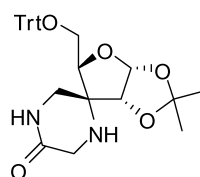
$[\alpha]_D^{20} = +13.0$  (*c* 0.85,  $CHCl_3$ )

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,*S*)

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$C_{30}H_{32}N_2O_5$

(3*R*)-1,2-*O*-Isopropylidene-5-*O*-trityl-spiro[3-deoxy- $\alpha$ -D-erythro-pentofuranose-3,5'-piperazine]-2'-one

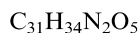
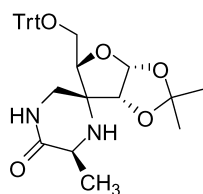
$[\alpha]_D^{27} = +51.1$  (*c* 0.28,  $CHCl_3$ )

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*)

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(3*R*,3'*S*)-1,2-*O*-Isopropylidene-3'-methyl-5-*O*-trityl-spiro[3-deoxy- $\alpha$ -D-*erythro*-pentofuranose-3,5'-piperazine]-2'-one

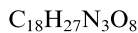
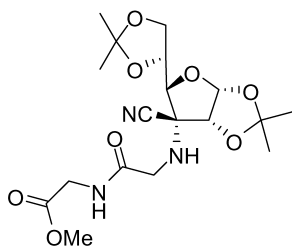
$[\alpha]_D^{27} = +10.6$  (*c* 0.39,  $CHCl_3$ )

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5)

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3-*C*-Cyano-3-deoxy-1,2:5,6-di-*O*-isopropylidene-3-[[[(methoxycarbonyl)methyl]carbamoyl]methyl]amino]- $\alpha$ -D-allofuranose

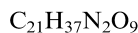
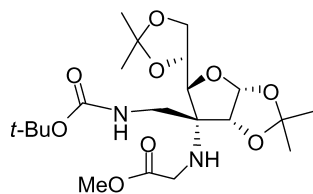
$[\alpha]_D^{28} = +1.4$  (*c* 0.38,  $CHCl_3$ )

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*)

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3-Deoxy-1,2:5,6-di-*O*-isopropylidene-3-[[[(methoxycarbonyl)methyl]amino]-3-*C*-[(*tert*-butoxycarbonyl)aminomethyl]- $\alpha$ -D-allofuranose

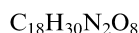
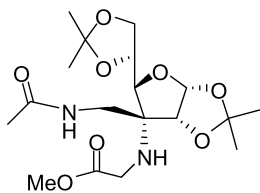
$[\alpha]_D^{32} = +13.3$  (*c* 1.38,  $CHCl_3$ )

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*)

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3-*C*-(Acetamidomethyl)-3-deoxy-1,2:5,6-di-*O*-isopropylidene-3-[[[(methoxycarbonyl)methyl]amino]- $\alpha$ -D-allofuranose

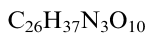
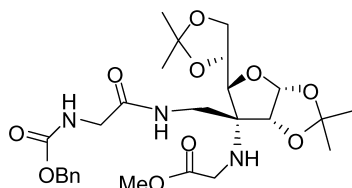
$[\alpha]_D^{20} = +47$  (*c* 0.16,  $CHCl_3$ )

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*)

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3-C-[[[(Benzyloxy)carbonyl]glycyl]aminomethyl]-3-deoxy-1,2:5,6-di-O-isopropylidene-3-[[methoxycarbonyl]methyl]amino]-α-D-allofuranose

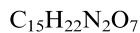
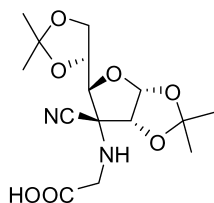
$$[\alpha]_D^{31} = -1.7 \text{ (c 0.92, CHCl}_3\text{)}$$

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*)

Hélène Ducatel, Albert Nguyen Van Nhien and Denis Postel\*

*Tetrahedron: Asymmetry 19 (2008) 67*



3-[(Carboxymethyl)amino]-3-C-cyano-3-deoxy-1,2:5,6-di-O-isopropylidene-α-D-allofuranose

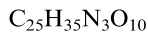
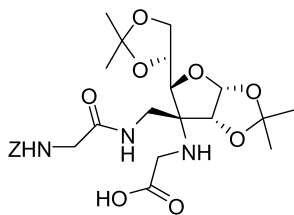
$$[\alpha]_D^{29} = +26.8 \text{ (c 0.47, CHCl}_3\text{)}$$

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*)

Hélène Ducatel, Albert Nguyen Van Nhien and Denis Postel\*

*Tetrahedron: Asymmetry 19 (2008) 67*



3-C-[[[(Benzyloxy)carbonyl]glycyl]aminomethyl]-3-[(carboxymethyl)amino]-3-deoxy-1,2:5,6-di-O-isopropylidene-α-D-allofuranose

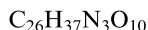
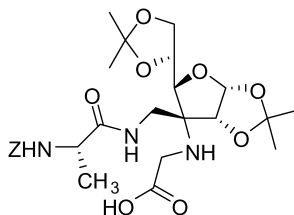
$$[\alpha]_D^{20} = +18 \text{ (c 0.12, CHCl}_3\text{)}$$

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*)

Hélène Ducatel, Albert Nguyen Van Nhien and Denis Postel\*

*Tetrahedron: Asymmetry 19 (2008) 67*



3-C-[[[(Benzyloxy)carbonyl]-L-alanyl]aminomethyl]-3-[(carboxymethyl)amino]-3-deoxy-1,2:5,6-di-O-isopropylidene-α-D-allofuranose

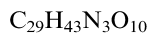
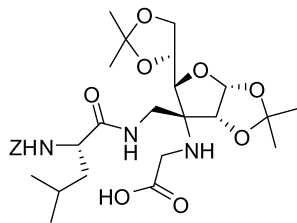
$$[\alpha]_D^{20} = +20 \text{ (c 0.11, CHCl}_3\text{)}$$

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*,*S*)

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*Tetrahedron: Asymmetry 19 (2008) 67*



3-C-[[[(Benzyloxy)carbonyl]-L-isoleucyl]aminomethyl]-3-[(carboxymethyl)amino]-3-deoxy-1,2:5,6-di-O-isopropylidene- $\alpha$ -D-allofuranose

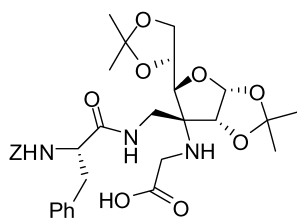
$[\alpha]_D^{20} = +27$  (c 0.15,  $CHCl_3$ )

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*,*S*)

Hélène Ducatel, Albert Nguyen Van Nhien and Denis Postel\*

*Tetrahedron: Asymmetry 19 (2008) 67*



3-C-[[[(Benzyloxy)carbonyl]-L-phenylalanyl]aminomethyl]-3-[(carboxymethyl)amino]-3-deoxy-1,2:5,6-di-O-isopropylidene- $\alpha$ -D-allofuranose

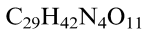
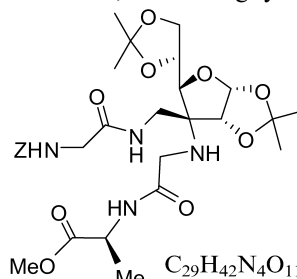
$[\alpha]_D^{20} = +21$  (c 0.12,  $CHCl_3$ )

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*,*S*)

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3-C-[[[(Benzyloxy)carbonyl]glycyl]aminomethyl]-3-deoxy-1,2:5,6-di-O-isopropylidene-3-[[[(1*S*)-(methoxycarbonyl)ethyl]amino]-carboxy]methylamino]- $\alpha$ -D-allofuranose

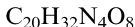
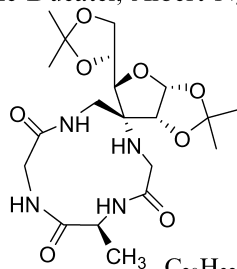
$[\alpha]_D^{20} = +7.0$  (c 0.10,  $CHCl_3$ )

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*,*S*)

Hélène Ducatel, Albert Nguyen Van Nhien and Denis Postel\*

*Tetrahedron: Asymmetry 19 (2008) 67*



[1*S*,3*R*,4*R*,5*S*,10*S*]-1-[(4*R*)(2,2-Dimethyl-[1,3]dioxolan-4-yl)]-3,4-O-isopropylidene-10-methyl-2-oxa-6,9,12,15-tetraaza-spiro[4.11]hexadecane-8,11,14-trione

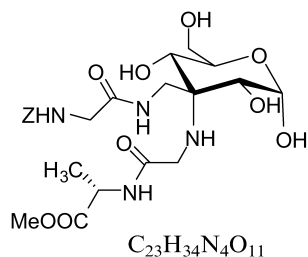
$[\alpha]_D^{20} = -13.0$  (c 0.15,  $CHCl_3$ )

Source of chirality: chemical reaction

Absolute configuration: (1*R*,2*R*,3*R*,4*R*,5*R*,*S*)

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$[\alpha]_D^{20} = +21$  (*c* 0.10, H<sub>2</sub>O)

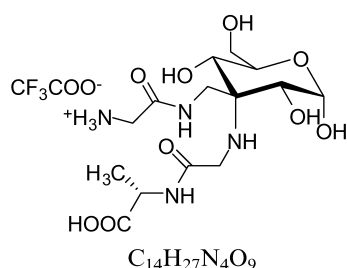
Source of chirality: chemical reaction

Absolute configuration: (2*R*,3*R*,4*R*,5*R*,*S*)

3-C-[[[(Benzyloxy)carbonyl]glycyl]aminomethyl]-3-deoxy-3-[[[1-(methoxycarbonyl)ethyl]amino]carboxymethyl]amino]-α-D-allopyranose

Hélène Ducatel, Albert Nguyen Van Nhien and Denis Postel\*

*Tetrahedron: Asymmetry 19 (2008) 67*



$[\alpha]_D^{20} = +29$  (*c* 0.25, H<sub>2</sub>O)

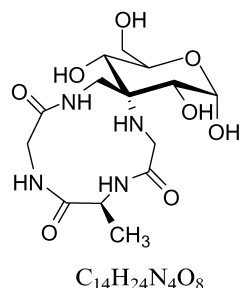
Source of chirality: chemical reaction

Absolute configuration: (2*R*,3*R*,4*R*,5*R*,*S*)

3-Deoxy-3-[[[1-(carboxy)ethyl]amino]carboxymethyl]amino]-3-C-[[[glycyl]amino]methyl]-α-D-allopyranose. Trifluoroacetate

Hélène Ducatel, Albert Nguyen Van Nhien and Denis Postel\*

*Tetrahedron: Asymmetry 19 (2008) 67*



$[\alpha]_D^{20} = +76$  (*c* 0.10, H<sub>2</sub>O)

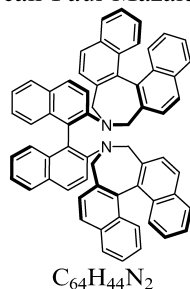
Source of chirality: chemical reaction

Absolute configuration: (2*R*,3*R*,4*R*,5*R*,*S*)

[(1*R*,2*R*,4*S*,5*S*,11*S*)]-1,2,5-Trihydroxy-4-hydroxymethyl-11-methyl-3-oxa-7,10,13,16-tetraaza-spiro[5.11]heptadecane-9,12,15-trione

Isabelle Aillaud, Karen Wright, Jacqueline Collin, Emmanuelle Schulz\* and Jean-Paul Mazaleytrat\*

*Tetrahedron: Asymmetry 19 (2008) 82*



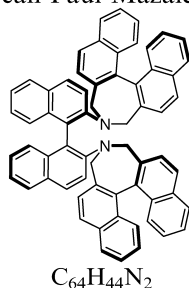
$[\alpha]_{436}^{25} = -238$  (*c* 0.2, CHCl<sub>3</sub>)

Absolute configuration: (*R*,*R*,*R*) (assigned by comparison)



Isabelle Aillaud, Karen Wright, Jacqueline Collin, Emmanuelle Schulz\*  
and Jean-Paul Mazaleyrat\*

*Tetrahedron: Asymmetry 19 (2008) 82*

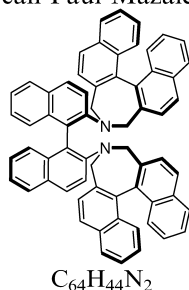


$$[\alpha]_{436}^{25} = -4256 \text{ (} c \text{ 0.23, CHCl}_3 \text{)}$$

Absolute configuration: (*R,S,S*) (assigned by comparison)

Isabelle Aillaud, Karen Wright, Jacqueline Collin, Emmanuelle Schulz\*  
and Jean-Paul Mazaleyrat\*

*Tetrahedron: Asymmetry 19 (2008) 82*

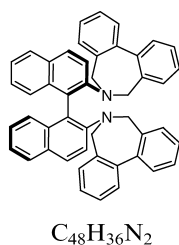


$$[\alpha]_{436}^{25} = -2070 \text{ (} c \text{ 0.2, CHCl}_3 \text{)}$$

Absolute configuration: (*R,R,S*) (assigned by comparison)

Isabelle Aillaud, Karen Wright, Jacqueline Collin, Emmanuelle Schulz\*  
and Jean-Paul Mazaleyrat\*

*Tetrahedron: Asymmetry 19 (2008) 82*

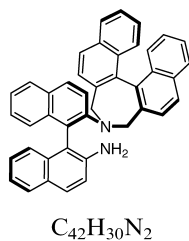


$$[\alpha]_{436}^{25} = -1096 \text{ (} c \text{ 0.5, CH}_2\text{Cl}_2 \text{)}$$

Absolute configuration: (*R*) (assigned from (*R*)-2,2'-diamino-1,1'-binaphthyl)

Isabelle Aillaud, Karen Wright, Jacqueline Collin, Emmanuelle Schulz\*  
and Jean-Paul Mazaleyrat\*

*Tetrahedron: Asymmetry 19 (2008) 82*

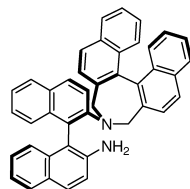


$$[\alpha]_{436}^{25} = +1970 \text{ (} c \text{ 0.2, CHCl}_3 \text{)}$$

Absolute configuration: (*R,R*) (assigned by comparison)

Isabelle Aillaud, Karen Wright, Jacqueline Collin, Emmanuelle Schulz\*  
and Jean-Paul Mazaleyrat\*

*Tetrahedron: Asymmetry 19 (2008) 82*



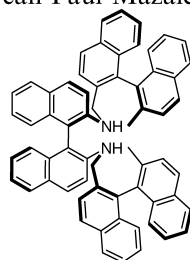
$C_{42}H_{30}N_2$

$$[\alpha]_{436}^{25} = -1779 \text{ (} c \text{ 0.2, CHCl}_3 \text{)}$$

Absolute configuration: (*R,S*) (assigned by comparison)

Isabelle Aillaud, Karen Wright, Jacqueline Collin, Emmanuelle Schulz\*  
and Jean-Paul Mazaleyrat\*

*Tetrahedron: Asymmetry 19 (2008) 82*



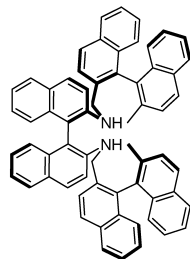
$C_{64}H_{48}N_2$

$$[\alpha]_{436}^{25} = -177 \text{ (} c \text{ 0.2, CHCl}_3 \text{)}$$

Absolute configuration: (*R,S,S*) (assigned by comparison)

Isabelle Aillaud, Karen Wright, Jacqueline Collin, Emmanuelle Schulz\*  
and Jean-Paul Mazaleyrat\*

*Tetrahedron: Asymmetry 19 (2008) 82*



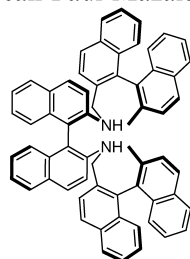
$C_{64}H_{48}N_2$

$$[\alpha]_{436}^{25} = -124 \text{ (} c \text{ 0.2, CHCl}_3 \text{)}$$

Absolute configuration: (*R,R,R*) (assigned by comparison)

Isabelle Aillaud, Karen Wright, Jacqueline Collin, Emmanuelle Schulz\*  
and Jean-Paul Mazaleyrat\*

*Tetrahedron: Asymmetry 19 (2008) 82*



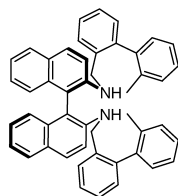
$C_{64}H_{48}N_2$

$$[\alpha]_{436}^{25} = -128 \text{ (} c \text{ 0.2, CHCl}_3 \text{)}$$

Absolute configuration: (*R,S,R*) (assigned by comparison)

Isabelle Aillaud, Karen Wright, Jacqueline Collin, Emmanuelle Schulz\*  
and Jean-Paul Mazaleyrat\*

*Tetrahedron: Asymmetry 19 (2008) 82*



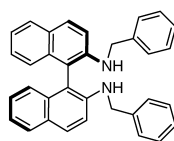
$C_{48}H_{40}N_2$

$$[\alpha]_{436}^{25} = +81 \text{ (} c \text{ 0.5, CH}_2\text{Cl}_2 \text{)}$$

Absolute configuration: (*R*) (assigned from (*R*)-2,2'-diamino-1,1'-binaphthyl)

Isabelle Aillaud, Karen Wright, Jacqueline Collin, Emmanuelle Schulz\*  
and Jean-Paul Mazaleyrat\*

*Tetrahedron: Asymmetry 19 (2008) 82*



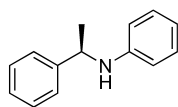
$C_{34}H_{28}N_2$

$$[\alpha]_{436}^{25} = +353 \text{ (} c \text{ 1.4, CHCl}_3 \text{)}$$

Absolute configuration: (*R*) (assigned from (*R*)-2,2'-diamino-1,1'-binaphthyl)

T. Vijayanthi and Anju Chadha\*

*Tetrahedron: Asymmetry 19 (2008) 93*



$C_{14}H_{15}N$

(*R*)-*N*-(1-Phenylethyl)benzenamine

Ee = 98%

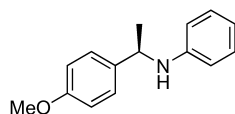
$$[\alpha]_D^{25} = -11.4 \text{ (} c \text{ 1.1, CHCl}_3 \text{)}$$

Source of chirality: biocatalytic asymmetric reduction

Absolute configuration: (*R*)

T. Vijayanthi and Anju Chadha\*

*Tetrahedron: Asymmetry 19 (2008) 93*



$C_{15}H_{17}NO$

(*R*)-*N*-(1-(4-Methoxyphenyl)ethyl)benzenamine

Ee = 97%

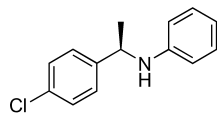
$$[\alpha]_D^{25} = -3.97 \text{ (} c \text{ 0.8, CHCl}_3 \text{)}$$

Source of chirality: biocatalytic asymmetric reduction

Absolute configuration: (*R*)

T. Vijayanthi and Anju Chadha\*

*Tetrahedron: Asymmetry 19 (2008) 93*



$C_{14}H_{14}ClN$

(*R*)-*N*-(1-(4-Chlorophenyl)ethyl)benzenamine

Ee = 95%

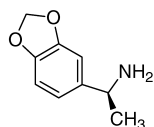
$[\alpha]_D^{25} = -11.9$  (*c* 1.2,  $CHCl_3$ )

Source of chirality: biocatalytic asymmetric reduction

Absolute configuration: (*R*)

Marc Lamblin, Axel Couture,\* Eric Deniau and Pierre Grandclaudon

*Tetrahedron: Asymmetry 19 (2008) 111*



$C_9H_{11}NO_2$

(*S*)-1-Benzo[1,3]dioxol-5-ylethylamine

Ee >96%

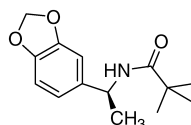
$[\alpha]_D^{25} = -24.8$  (*c* 1.10,  $CHCl_3$ )

Source of chirality: (*S*)-valinol

Absolute configuration: (*1S*)

Marc Lamblin, Axel Couture,\* Eric Deniau and Pierre Grandclaudon

*Tetrahedron: Asymmetry 19 (2008) 111*



$C_{14}H_{19}NO_3$

*N*-(*S*)-(1-Benzo[1,3]dioxol-5-ylethyl)-2,2-dimethylpropionamide

Ee >96%

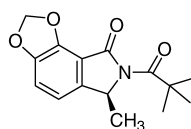
$[\alpha]_D^{25} = -86.2$  (*c* 1.04,  $CHCl_3$ )

Source of chirality: (*S*)-valinol

Absolute configuration: (*1S*)

Marc Lamblin, Axel Couture,\* Eric Deniau and Pierre Grandclaudon

*Tetrahedron: Asymmetry 19 (2008) 111*



$C_{15}H_{17}NO_4$

(*S*)-7-(2,2-Dimethylpropionyl)-6-methyl-6,7-dihydro-8*H*-1,3-dioxolo[4,5-*e*]isoindol-8-one

Ee >96%

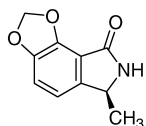
$[\alpha]_D^{25} = +2.0$  (*c* 1.05,  $CHCl_3$ )

Source of chirality: (*S*)-valinol

Absolute configuration: (*6S*)

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*Tetrahedron: Asymmetry 19 (2008) 111*



(S)-6-Methyl-6,7-dihydro-8H-1,3-dioxolo[4,5-e]isoindol-8-one

Ee >96%

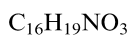
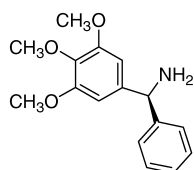
$[\alpha]_D^{25} = -12.4$  (c 1.03, DMSO)

Source of chirality: (S)-valinol

Absolute configuration: (6S)

Marc Lamblin, Axel Couture,\* Eric Deniau and Pierre Grandclaudon

*Tetrahedron: Asymmetry 19 (2008) 111*



(S)-1-Phenyl-1-(3,4,5-trimethoxyphenyl)methylamine

Ee >96%

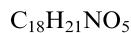
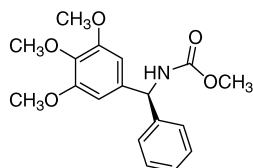
$[\alpha]_D^{25} = +24.4$  (c 1.06,  $CHCl_3$ )

Source of chirality: (S)-valinol

Absolute configuration: (1S)

Marc Lamblin, Axel Couture,\* Eric Deniau and Pierre Grandclaudon

*Tetrahedron: Asymmetry 19 (2008) 111*



(S)-[1-Phenyl-1-(3,4,5-trimethoxyphenyl)methyl] carbamic acid methyl ester

Ee >96%

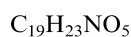
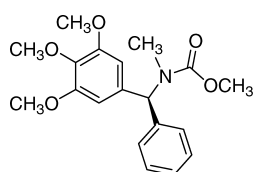
$[\alpha]_D^{25} = -3.4$  (c 1.05,  $CHCl_3$ )

Source of chirality: (S)-valinol

Absolute configuration: (1S)

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*Tetrahedron: Asymmetry 19 (2008) 111*



(S)-Methyl[1-phenyl-1-(3,4,5-trimethoxyphenyl)methyl]carbamic acid methyl ester

Ee >96%

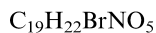
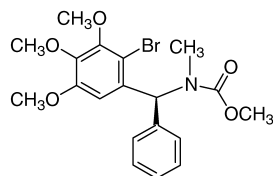
$[\alpha]_D^{25} = -11.2$  (c 1.00,  $CHCl_3$ )

Source of chirality: (S)-valinol

Absolute configuration: (1S)

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*Tetrahedron: Asymmetry 19 (2008) 111*



(S)-[(2-Bromo-3,4,5-trimethoxyphenyl)phenylmethyl]methylcarbamic acid methyl ester

Ee >96%

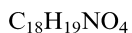
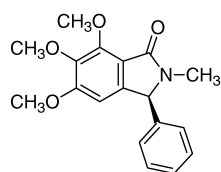
$[\alpha]_D^{25} = -0.3$  (c 1.01,  $CHCl_3$ )

Source of chirality: (S)-valinol

Absolute configuration: (1S)

Marc Lamblin, Axel Couture,\* Eric Deniau and Pierre Grandclaudon

*Tetrahedron: Asymmetry 19 (2008) 111*



(S)-5,6,7-Trimethoxy-2-methyl-3-phenyl-2,3-dihydro-1H-isindol-1-one

Ee >96%

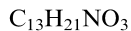
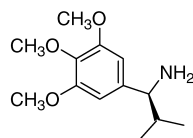
$[\alpha]_D^{25} = +5.7$  (c 1.06,  $CHCl_3$ )

Source of chirality: (S)-valinol

Absolute configuration: (3S)

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*Tetrahedron: Asymmetry 19 (2008) 111*



(S)-2-Methyl-1-(3,4,5-trimethoxyphenyl)propylamine

Ee >96%

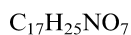
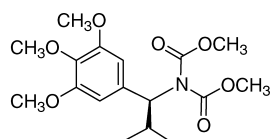
$[\alpha]_D^{25} = +3.5$  (c 1.03,  $CHCl_3$ )

Source of chirality: (S)-valinol

Absolute configuration: (1S)

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(S)-N,N-Di(methoxycarbonyl)-2-methyl-1-(3,4,5-trimethoxyphenyl)propylamine

Ee >96%

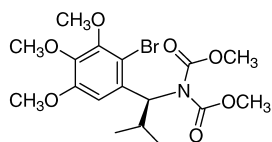
$[\alpha]_D^{25} = -48.1$  (c 1.02,  $CHCl_3$ )

Source of chirality: (S)-valinol

Absolute configuration: (1S)

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$C_{17}H_{24}BrNO_7$

(*S*)-*N,N*-Di(methoxycarbonyl)-2-methyl-1-(2-bromo-3,4,5-trimethoxyphenyl)propylamine

Ee >96%

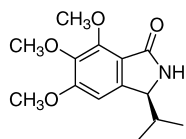
$[\alpha]_D^{25} = +6.5$  (*c* 1.06,  $CHCl_3$ )

Source of chirality: (*S*)-valinol

Absolute configuration: (1*S*)

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*Tetrahedron: Asymmetry 19 (2008) 111*



$C_{14}H_{19}NO_4$

(*S*)-3-Isopropyl-5,6,7-trimethoxy-2,3-dihydro-1*H*-isoindol-1-one

Ee >96%

$[\alpha]_D^{25} = -48.1$  (*c* 0.9,  $CHCl_3$ )

Source of chirality: (*S*)-valinol

Absolute configuration: (3*S*)