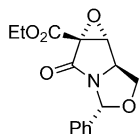


Stereochemistry abstracts

Ian F. Cottrell, Philip J. Davis and Mark G. Moloney*

Tetrahedron: Asymmetry 15 (2004) 1239



$C_{15}H_{16}NO_5$

6,7-Epoxy-7-ethoxycarbonyl-8-oxo-2-phenyl-1-aza-3-oxa-bicyclo[3.3.0]octane

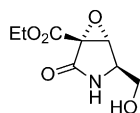
$[\alpha]_D^{22} = +20.9$ ($c = 1$, $CHCl_3$)

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

Absolute configuration: (2*R*,5*R*,6*R*,7*R*)

Ian F. Cottrell, Philip J. Davis and Mark G. Moloney*

Tetrahedron: Asymmetry 15 (2004) 1239



$C_8H_{12}NO_5$

3,4-Epoxy-4-ethoxycarbonyl-2-hydroxymethyl-5-oxo-pyrrolidine

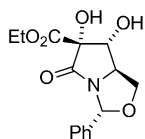
$[\alpha]_D^{22} = +0.3$ ($c = 0.075$, $CHCl_3$)

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

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

Ian F. Cottrell, Philip J. Davis and Mark G. Moloney*

Tetrahedron: Asymmetry 15 (2004) 1239



$C_{15}H_{18}NO_6$

7-Ethoxycarbonyl-8-oxo-2-phenyl-6,7-dihydroxy-1-aza-3-oxa-bicyclo[3.3.0]octane

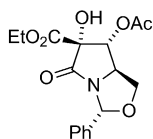
$[\alpha]_D^{22} = +127$ ($c = 1$, $CHCl_3$)

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

Absolute configuration: (2*R*,5*R*,6*R*,7*R*)

Ian F. Cottrell, Philip J. Davis and Mark G. Moloney*

Tetrahedron: Asymmetry 15 (2004) 1239



$C_{17}H_{20}NO_7$

6-Acetoxy-7-ethoxycarbonyl-8-oxo-2-phenyl-7-hydroxy-1-aza-3-oxa-bicyclo[3.3.0]octane

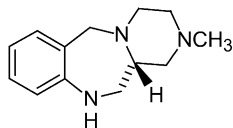
$[\alpha]_D^{22} = +2.9$ ($c = 0.025$, $CHCl_3$)

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

Absolute configuration: (2*R*,5*R*,6*R*,7*R*)

Jay M. Matthews,* Alexey B. Dyatkin, Mary Evangelisto,
Diane A. Gauthier, Leonard R. Hecker, William J. Hoekstra,
Fuqiang Liu, Brenda L. Poulter, Kirk L. Sorgi and Bruce E. Maryanoff

Tetrahedron: Asymmetry 15 (2004) 1259



(S)-2-Methyl-1,2,3,4,5,10,11,11a-octahydro-2,4a,10-triaza-dibenzo[a,d]cycloheptene

Ee $\geq$ 98%

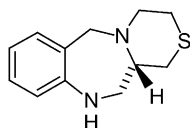
$[\alpha]_D^{20} = -139$ (c 0.766, $CHCl_3$)

Source of chirality: diastereomeric crystallization

Absolute configuration: (11aS)

Jay M. Matthews,* Alexey B. Dyatkin, Mary Evangelisto,
Diane A. Gauthier, Leonard R. Hecker, William J. Hoekstra,
Fuqiang Liu, Brenda L. Poulter, Kirk L. Sorgi and Bruce E. Maryanoff

Tetrahedron: Asymmetry 15 (2004) 1259



(S)-3,4,5,10,11,11a-Hexahydro-1H,2-thia-4a,10-diaza-dibenzo[a,d]cycloheptene

Ee $\geq$ 98%

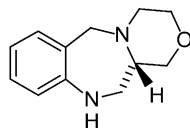
$[\alpha]_D^{20} = -280$ (c 0.124, $CHCl_3$)

Source of chirality: diastereomeric crystallization

Absolute configuration: (11aS)

Jay M. Matthews,* Alexey B. Dyatkin, Mary Evangelisto,
Diane A. Gauthier, Leonard R. Hecker, William J. Hoekstra,
Fuqiang Liu, Brenda L. Poulter, Kirk L. Sorgi and Bruce E. Maryanoff

Tetrahedron: Asymmetry 15 (2004) 1259



(S)-3,4,5,10,11,11a-Hexahydro-1H,2-oxa-4a,10-diaza-dibenzo[a,d]cycloheptene

Ee = 98.3%

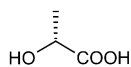
$[\alpha]_D^{20} = -147$ (c 0.88, $CHCl_3$)

Source of chirality: diastereomeric crystallization

Absolute configuration: (11aS)

Wu Su, Zhiyuan Chang, Keliang Gao and Dongzhi Wei*

Tetrahedron: Asymmetry 15 (2004) 1275



(R)-2-Hydroxypropionic acid

Ee = 100%

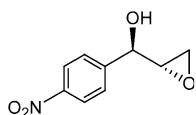
$[\alpha]_D^{20} = -1.8$ (c 8, H_2O)

Source of chirality: asymmetric oxidation

Absolute configuration: R

G. Bhaskar, V. Satish Kumar and B. Venkateswara Rao*

Tetrahedron: Asymmetry 15 (2004) 1279



($\alpha S,2R$)- α -(4-Nitrophenyl)oxiranemethanol

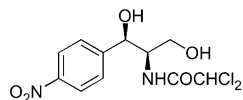
$$[\alpha]_D^{25} = -60.8 \text{ (} c \text{ 1.0, CHCl}_3 \text{)}$$

Source of chirality: Sharpless asymmetric epoxidation under kinetic resolution

Absolute configuration: ($\alpha S,2R$)

G. Bhaskar, V. Satish Kumar and B. Venkateswara Rao*

Tetrahedron: Asymmetry 15 (2004) 1279



(-)-Chloramphenicol

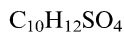
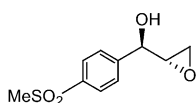
$$[\alpha]_D^{25} = -25.4 \text{ (} c \text{ 0.57, EtOAc)}$$

Source of chirality: asymmetric synthesis

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

G. Bhaskar, V. Satish Kumar and B. Venkateswara Rao*

Tetrahedron: Asymmetry 15 (2004) 1279



($\alpha S,2R$)- α -(4-Methylsulfonylphenyl)oxiranemethanol

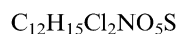
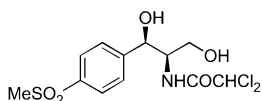
$$[\alpha]_D^{25} = -47.4 \text{ (} c \text{ 0.95, CHCl}_3 \text{)}$$

Source of chirality: Sharpless asymmetric epoxidation under kinetic resolution

Absolute configuration: ($\alpha S,2R$)

G. Bhaskar, V. Satish Kumar and B. Venkateswara Rao*

Tetrahedron: Asymmetry 15 (2004) 1279



(+)-Thiamphenicol

$$[\alpha]_D^{25} = +12.6 \text{ (} c \text{ 0.65, EtOH)}$$

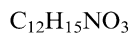
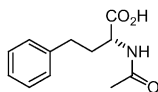
Source of chirality: asymmetric synthesis

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

Ignacio Regla,* Héctor Luna, Herminia I. Pérez, Patricia Demare,
Ismael Bustos-Jaimes, Victor Zaldívar and Mario L. Calcagno

Tetrahedron: Asymmetry 15 (2004) 1285

$$[\alpha]_{\text{D}}^{20} = -19.5 \text{ (} c \text{ 1, CH}_3\text{OH)}$$

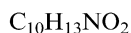
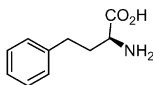


(*R*)-2-Acetamido-4-phenylbutanoic acid

Ignacio Regla,* Héctor Luna, Herminia I. Pérez, Patricia Demare,
Ismael Bustos-Jaimes, Victor Zaldívar and Mario L. Calcagno

Tetrahedron: Asymmetry 15 (2004) 1285

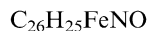
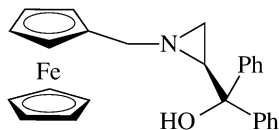
$$[\alpha]_{\text{D}}^{20} = +45.2 \text{ (} c \text{ 1, 3N HCl)}$$



(*S*)-2-Amino-4-phenylbutanoic acid

Min-Can Wang, De-Kun Wang,* Yu Zhu, Lan-Tao Liu and
Yi-Fei Guo

Tetrahedron: Asymmetry 15 (2004) 1289



(-)-(2*S*)-1-Ferrocenylmethylaziridin-2-yl(diphenyl)methanol

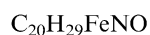
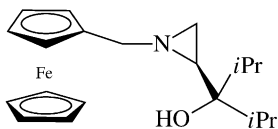
Ee >99%

$$[\alpha]_{\text{D}} = -26.1 \text{ (} c \text{ 0.964, CHCl}_3)$$

Absolute configuration: *S*

Min-Can Wang, De-Kun Wang,* Yu Zhu, Lan-Tao Liu and
Yi-Fei Guo

Tetrahedron: Asymmetry 15 (2004) 1289



(-)-(2*S*)-1-Ferrocenylmethylaziridin-2-yl(di-*i*-propyl)methanol

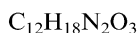
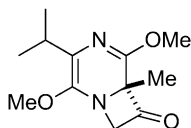
Ee >99%

$$[\alpha]_{\text{D}} = -74.9 \text{ (} c \text{ 1.128, CHCl}_3)$$

Absolute configuration: *S*

Mioara Andrei, Jon Efskind, Trine Viljugrein, Christian Rømming and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 1301



(6*R*)-3-Isopropyl-2,5-dimethoxy-6-methyl-1,4-diazabicyclo[4.2.0]octa-2,4-dien-7-one

Ee = >95%

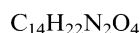
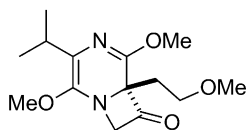
$[\alpha]_D^{20} = +13.6$ (c 1.0, $CHCl_3$)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (6*R*)

Mioara Andrei, Jon Efskind, Trine Viljugrein, Christian Rømming and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 1301



(6*R*)-3-Isopropyl-2,5-dimethoxy-6-(2-methoxyethyl)-1,4-diazabicyclo[4.2.0]octa-2,4-dien-7-one

Ee = >95%

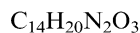
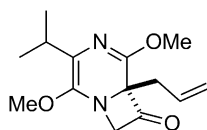
$[\alpha]_D^{20} = +23.3$ (c 0.45, $CHCl_3$)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (6*R*)

Mioara Andrei, Jon Efskind, Trine Viljugrein, Christian Rømming and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 1301



(6*R*)-6-Allyl-3-isopropyl-2,5-dimethoxy-1,4-diazabicyclo[4.2.0]octa-2,4-dien-7-one

Ee = >95%

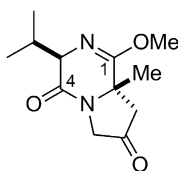
$[\alpha]_D^{20} = +10.2$ (c 1.0, MeOH)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (6*R*)

Mioara Andrei, Jon Efskind, Trine Viljugrein, Christian Rømming and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 1301



(3*R*,8*aS*)-3-Isopropyl-1-methoxy-8a-methyl-8,8a-dihydro-3*H*-pyrrolo[1,2-*a*]pyrazine-4,7-dione

Ee = >95%

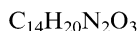
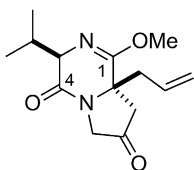
$[\alpha]_D^{20} = -20.1$ (c 1.0, $CHCl_3$)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (3*R*,8*aS*)

Mioara Andrei, Jon Efskind, Trine Viljugrein, Christian Rømming and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 1301



(3*R*,8*aS*)-8a-Allyl-3-isopropyl-1-methoxy-8,8a-dihydro-3*H*-pyrrolo[1,2-*a*]pyrazine-4,7-dione

Ee = >95%

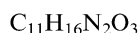
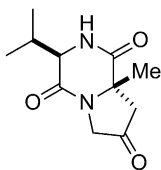
$[\alpha]_D^{20} = -179.6$ (c 1.34, $CHCl_3$)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (3*R*,8*aS*)

Mioara Andrei, Jon Efskind, Trine Viljugrein, Christian Rømming and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 1301



(3*R*,8*aS*)-3-Isopropyl-8a-methyltetrahydropyrrolo[1,2-*a*]pyrazine-1,4,7-trione

Ee = >95%

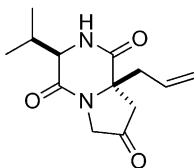
$[\alpha]_D^{20} = -211.3$ (c 0.85, CH_2Cl_2)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (3*R*,8*aS*)

Mioara Andrei, Jon Efskind, Trine Viljugrein, Christian Rømming and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 1301



(3*R*,8*aS*)-8a-Allyl-3-isopropyltetrahydropyrrolo[1,2-*a*]pyrazine-1,4,7-trione

Ee = >95%

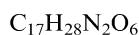
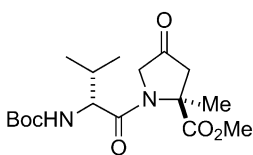
$[\alpha]_D^{20} = -104.3$ (c 0.72, $CHCl_3$)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (3*R*,8*aS*)

Mioara Andrei, Jon Efskind, Trine Viljugrein, Christian Rømming and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 1301



(2*S*,2'*R*)-1-(2-*tert*-Butoxycarbonylamino-3-methylbutyryl)-2-methyl-4-oxopyrrolidine-2-carboxylic acid methyl ester

Ee = >95%

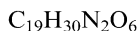
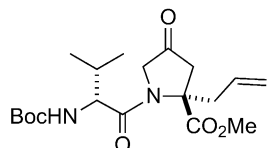
$[\alpha]_D^{20} = -9.3$ (c 1.0, CH_2Cl_2)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

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

Mioara Andrei, Jon Efskind, Trine Viljugrein, Christian Rømming and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 1301



(2*S*,2'*R*)-2-Allyl-1-(2-*tert*-butoxycarbonylamino-3-methylbutyryl)-4-oxopyrrolidine-2-carboxylic acid methyl ester

Ee = >95%

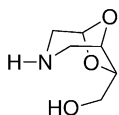
$[\alpha]_D^{20} = +21.5$ (c 1.28, $CHCl_3$)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

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

Dina Scarpi, Fabrizio Lo Galbo, Ernesto G. Occhiato and Antonio Guarna*

Tetrahedron: Asymmetry 15 (2004) 1319



(1*S*,5*S*,7*R*)-(6,8-Dioxa-3-aza-bicyclo[3.2.1]oct-7-yl)-methanol

Ee = 100%

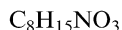
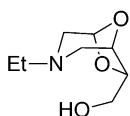
$[\alpha]_D^{20} = -70.1$ (c 0.96, $CHCl_3$)

Source of chirality: D-(–)-arabinose

Absolute configuration: (1*S*,5*S*,7*R*)

Dina Scarpi, Fabrizio Lo Galbo, Ernesto G. Occhiato and Antonio Guarna*

Tetrahedron: Asymmetry 15 (2004) 1319



(1*S*,5*S*,7*R*)-(3-Ethyl-6,8-dioxa-3-aza-bicyclo[3.2.1]oct-7-yl)-methanol

Ee = 100%

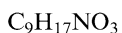
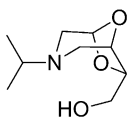
$[\alpha]_D^{22} = -88.5$ (c 0.58, $CHCl_3$)

Source of chirality: D-(–)-arabinose

Absolute configuration: (1*S*,5*S*,7*R*)

Dina Scarpi, Fabrizio Lo Galbo, Ernesto G. Occhiato and Antonio Guarna*

Tetrahedron: Asymmetry 15 (2004) 1319



(1*S*,5*S*,7*R*)-(3-Isopropyl-6,8-dioxa-3-aza-bicyclo[3.2.1]oct-7-yl)-methanol

Ee = 100%

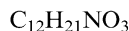
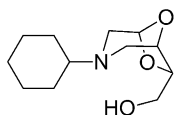
$[\alpha]_D^{27} = -72.5$ (c 0.96, $CHCl_3$)

Source of chirality: D-(–)-arabinose

Absolute configuration: (1*S*,5*S*,7*R*)

Dina Scarpi, Fabrizio Lo Galbo, Ernesto G. Occhiato and Antonio Guarna*

Tetrahedron: Asymmetry 15 (2004) 1319



(1*S*,5*S*,7*R*)-(3-Cyclohexyl-6,8-dioxo-3-aza-bicyclo[3.2.1]oct-7-yl)-methanol

Ee = 100%

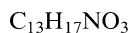
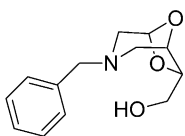
$[\alpha]_D^{27} = -73.7$ (c 1.37, $CHCl_3$)

Source of chirality: D-(–)-arabinose

Absolute configuration: (1*S*,5*S*,7*R*)

Dina Scarpi, Fabrizio Lo Galbo, Ernesto G. Occhiato and Antonio Guarna*

Tetrahedron: Asymmetry 15 (2004) 1319



(1*S*,5*S*,7*R*)-(3-Benzyl-6,8-dioxo-3-aza-bicyclo[3.2.1]oct-7-yl)-methanol

Ee = 100%

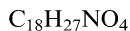
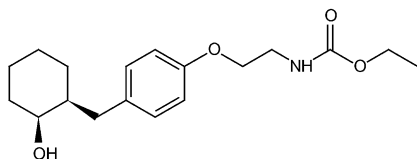
$[\alpha]_D^{27} = -92.3$ (c 0.88, $CHCl_3$)

Source of chirality: D-(–)-arabinose

Absolute configuration: (1*S*,5*S*,7*R*)

Marie Zarevúcka, Zdeněk Wimmer,* David Šaman, Kateřina Demnerová and Martina Macková

Tetrahedron: Asymmetry 15 (2004) 1325



(1*S*,2*S*)-*N*-{2-[4-[(2-Hydroxycyclohexyl)methyl]phenoxy]ethyl}carbamic acid ethyl ester

Ee = 99%

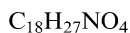
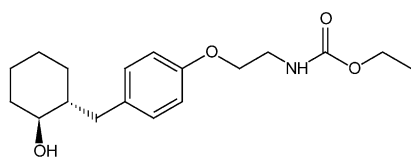
$[\alpha]_D^{24} = +12.15$ (c 0.52, $CHCl_3$)

Source of chirality: enzymic reduction catalyzed by whole cells of yeasts

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

Marie Zarevúcka, Zdeněk Wimmer,* David Šaman, Kateřina Demnerová and Martina Macková

Tetrahedron: Asymmetry 15 (2004) 1325



(1*R*,2*S*)-*N*-{2-[4-[(2-Hydroxycyclohexyl)methyl]phenoxy]ethyl}carbamic acid ethyl ester

Ee = 99%

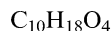
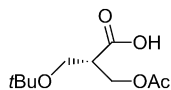
$[\alpha]_D^{24} = +16.35$ (c 0.65, $CHCl_3$)

Source of chirality: enzymic reduction catalyzed by whole cells of yeasts

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

Hocine Allali, Boufeldja Tabti, Christian Alexandre* and François Huet*

Tetrahedron: Asymmetry 15 (2004) 1331



(+)-(S)-3-(Acetoxy)-2-(tert-butoxymethyl) propanoic acid

Ee = 87%

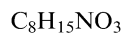
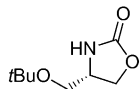
$[\alpha]_D^{20} = +1.1$ (c 2, $CHCl_3$)

Source of chirality: enzymatic acetylation

Absolute configuration: (S)

Hocine Allali, Boufeldja Tabti, Christian Alexandre* and François Huet*

Tetrahedron: Asymmetry 15 (2004) 1331



(-)-(S)-4-(tert-Butoxymethyl) oxazolidin-2-one

Ee = 80%

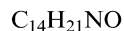
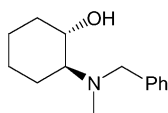
$[\alpha]_D^{20} = -55.15$ (c 2.0, $CHCl_3$)

Source of chirality: enzymatic acetylation

Absolute configuration: (S)

Javier González-Sabín, Vicente Gotor* and Francisca Rebolledo*

Tetrahedron: Asymmetry 15 (2004) 1335



(1S,2S)-2-(N-Benzyl-N-methylamino)cyclohexanol

Ee = 66%

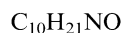
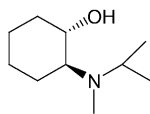
$[\alpha]_D^{20} = +33.5$ (c 1.1, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: (1S,2S)

Javier González-Sabín, Vicente Gotor* and Francisca Rebolledo*

Tetrahedron: Asymmetry 15 (2004) 1335



(1S,2S)-2-(N-Isopropyl-N-methylamino)cyclohexanol

Ee = 47%

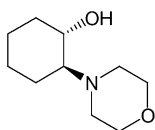
$[\alpha]_D^{20} = +29.5$ (c 1.1, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: (1S,2S)

Javier González-Sabín, Vicente Gotor* and Francisca Rebolledo*

Tetrahedron: Asymmetry 15 (2004) 1335



$C_{10}H_{19}NO_2$
(1*S*,2*S*)-2-(Morpholin-4-yl)cyclohexanol

Ee = 74%

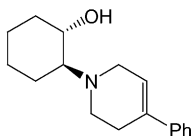
$[\alpha]_D^{20} = +53.6$ (c 1.1, $CHCl_3$)

Source of chirality: enzymatic resolution

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

Javier González-Sabín, Vicente Gotor* and Francisca Rebolledo*

Tetrahedron: Asymmetry 15 (2004) 1335



$C_{17}H_{23}NO$
(1*S*,2*S*)-2-(4-Phenyl-1,2,5,6-tetrahydropyridin-1-yl)cyclohexanol

Ee = 93%

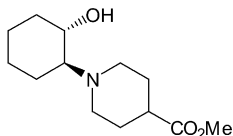
$[\alpha]_D^{20} = +26.9$ (c 1.1, $CHCl_3$)

Source of chirality: enzymatic resolution

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

Javier González-Sabín, Vicente Gotor* and Francisca Rebolledo*

Tetrahedron: Asymmetry 15 (2004) 1335



$C_{13}H_{23}NO_3$
(1*S*,2*S*)-2-(4-Methoxycarbonylpiperidin-1-yl)cyclohexanol

Ee = 95%

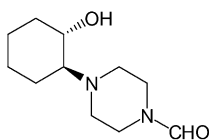
$[\alpha]_D^{20} = +44.0$ (c 1.1, $CHCl_3$)

Source of chirality: enzymatic resolution

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

Javier González-Sabín, Vicente Gotor* and Francisca Rebolledo*

Tetrahedron: Asymmetry 15 (2004) 1335



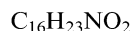
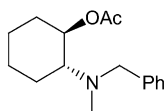
$C_{11}H_{20}N_2O_2$
(1*S*,2*S*)-2-(4-Formylpiperazin-1-yl)cyclohexanol

Ee = 70%

$[\alpha]_D^{20} = +32.9$ (c 0.93, $CHCl_3$)

Source of chirality: enzymatic resolution

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



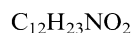
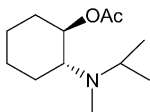
(1*R*,2*R*)-2-(*N*-Benzyl-*N*-methylamino)cyclohexyl acetate

Ee >99%

$[\alpha]_{\text{D}}^{20} = +2.0$ (*c* 0.65, CHCl_3)

Source of chirality: enzymatic resolution

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



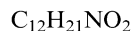
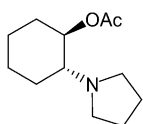
(1*R*,2*R*)-2-(*N*-Isopropyl-*N*-methylamino)cyclohexyl acetate

Ee = 92%

$[\alpha]_{\text{D}}^{20} = -25.2$ (*c* 0.80, CHCl_3)

Source of chirality: enzymatic resolution

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



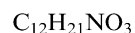
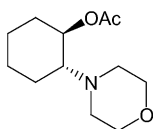
(1*R*,2*R*)-2-(Pyrrolidin-1-yl)cyclohexyl acetate

Ee = 96%

$[\alpha]_{\text{D}}^{20} = -31.4$ (*c* 0.90, CHCl_3)

Source of chirality: enzymatic resolution

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



(1*R*,2*R*)-2-(Morpholin-4-yl)cyclohexyl acetate

Ee = enantiopure

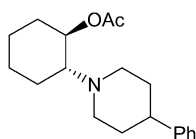
$[\alpha]_{\text{D}}^{20} = -23.0$ (*c* 1.1, CHCl_3)

Source of chirality: enzymatic resolution

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

Javier González-Sabín, Vicente Gotor* and Francisca Rebolledo*

Tetrahedron: Asymmetry 15 (2004) 1335



$C_{19}H_{27}NO_2$
(1*R*,2*R*)-2-(4-Phenylpiperidin-1-yl)cyclohexyl acetate

Ee = enantiopure

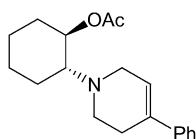
$[\alpha]_D^{20} = -19.2$ (c 1.0, $CHCl_3$)

Source of chirality: enzymatic resolution

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

Javier González-Sabín, Vicente Gotor* and Francisca Rebolledo*

Tetrahedron: Asymmetry 15 (2004) 1335



$C_{19}H_{25}NO_2$
(1*R*,2*R*)-2-(4-Phenyl-1,2,5,6-tetrahydropyridin-1-yl)cyclohexyl acetate

Ee = enantiopure

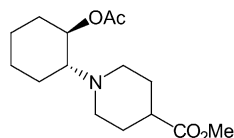
$[\alpha]_D^{20} = -23.4$ (c 1.0, $CHCl_3$)

Source of chirality: enzymatic resolution

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

Javier González-Sabín, Vicente Gotor* and Francisca Rebolledo*

Tetrahedron: Asymmetry 15 (2004) 1335



$C_{15}H_{25}NO_4$
(1*R*,2*R*)-2-(4-Methoxycarbonylpiperidin-1-yl)cyclohexyl acetate

Ee = enantiopure

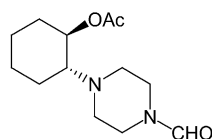
$[\alpha]_D^{20} = -22.1$ (c 1.1, $CHCl_3$)

Source of chirality: enzymatic resolution

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

Javier González-Sabín, Vicente Gotor* and Francisca Rebolledo*

Tetrahedron: Asymmetry 15 (2004) 1335



$C_{13}H_{22}N_2O_3$
(1*R*,2*R*)-2-(4-Formylpiperazin-1-yl)cyclohexyl acetate

Ee >99%

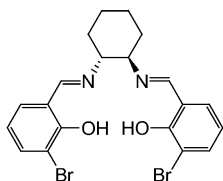
$[\alpha]_D^{20} = -36.4$ (c 1.0, $CHCl_3$)

Source of chirality: enzymatic resolution

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

E. M. McGarrigle, D. M. Murphy and D. G. Gilheany*

Tetrahedron: Asymmetry 15 (2004) 1343



(*R,R*)-(-)-*N,N'*-Bis(3-bromosalicylidene)-*trans*-cyclohexane-1,2-diamine

Ee = 100%

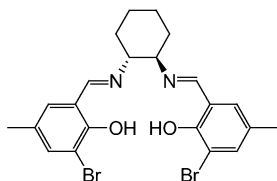
$[\alpha]_D^{25} = -578$ (c 0.601, CH_2Cl_2)

Source of chirality: enantiopure starting material

Absolute configuration: (*R,R*)

E. M. McGarrigle, D. M. Murphy and D. G. Gilheany*

Tetrahedron: Asymmetry 15 (2004) 1343



(*R,R*)-(-)-*N,N'*-Bis(3-bromo-5-methylsalicylidene)-*trans*-cyclohexane-1,2-diamine

Ee = 100%

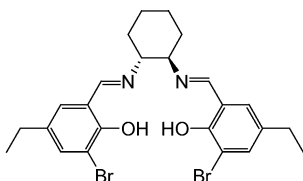
$[\alpha]_D^{31} = -498$ (c 1.03, CH_2Cl_2)

Source of chirality: enantiopure starting material

Absolute configuration: (*R,R*)

E. M. McGarrigle, D. M. Murphy and D. G. Gilheany*

Tetrahedron: Asymmetry 15 (2004) 1343



(*R,R*)-(-)-*N,N'*-Bis(3-bromo-5-ethylsalicylidene)-*trans*-cyclohexane-1,2-diamine

Ee = 100%

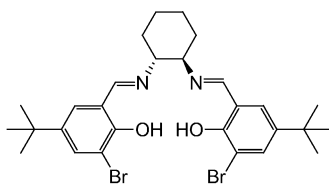
$[\alpha]_D^{34} = -450$ (c 1.06, CH_2Cl_2)

Source of chirality: enantiopure starting material

Absolute configuration: (*R,R*)

E. M. McGarrigle, D. M. Murphy and D. G. Gilheany*

Tetrahedron: Asymmetry 15 (2004) 1343



(*R,R*)-(-)-*N,N'*-Bis(3-bromo-5-*tert*-butylsalicylidene)-*trans*-cyclohexane-1,2-diamine

Ee = 100%

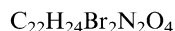
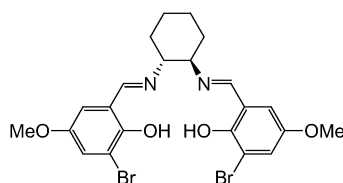
$[\alpha]_D^{32} = -396$ (c 1.19, CH_2Cl_2)

Source of chirality: enantiopure starting material

Absolute configuration: (*R,R*)

E. M. McGarrigle, D. M. Murphy and D. G. Gilheany*

Tetrahedron: Asymmetry 15 (2004) 1343



(*R,R*)-(-)-*N,N'*-Bis(3-bromo-5-methoxysalicylidene)-*trans*-cyclohexane-1,2-diamine

Ee = 100%

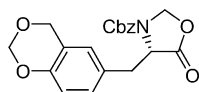
$[\alpha]_D^{23} = -432$ (c 0.41, CH_2Cl_2)

Source of chirality: enantiopure starting material

Absolute configuration: (*R,R*)

Pietro Allevi,* Riccardo Cribiù and Mario Anastasia

Tetrahedron: Asymmetry 15 (2004) 1355



Benzyl (*S*)-4-(4*H*-1,3-benzodioxin-6-ylmethyl)-5-oxo-1,3-oxazolan-3-carboxylate

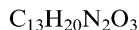
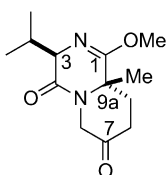
$[\alpha]_D^{25} = +193.4$ (c 1, $CHCl_3$)

Source of chirality: natural L-tyrosine

Absolute configuration: (4*S*)

Mioara Andrei, Christian Römmeing and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 1359



(3*R*,9*aS*)-3-Isopropyl-1-methoxy-9*a*-methyl-3,8,9,9*a*-tetrahydropyrido[1,2-*a*]pyrazine-4,7-dione

Ee = >95%

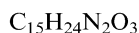
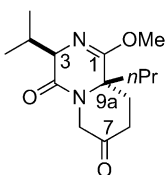
$[\alpha]_D^{20} = -69.7$ (c 1.00, $CHCl_3$)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (3*R*,9*aS*)

Mioara Andrei, Christian Römmeing and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 1359



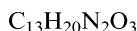
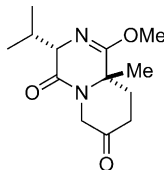
(3*R*,9*aS*)-3-Isopropyl-1-methoxy-9*a*-propyl-3,8,9,9*a*-tetrahydropyrido[1,2-*a*]pyrazine-4,7-dione

Ee = >95%

$[\alpha]_D^{20} = -111.8$ (c 1.00, $CHCl_3$)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (3*R*,9*aS*)



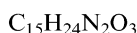
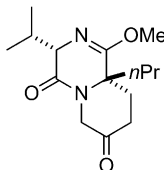
(3*S*,9*aS*)-3-Isopropyl-1-methoxy-9*a*-methyl-3,8,9,9*a*-tetrahydropyrido[1,2-*a*]pyrazine-4,7-dione

Ee = >95%

$[\alpha]_{\text{D}}^{20} = -169.8$ (c 1.00, CHCl₃)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (3*S*,9*aS*)



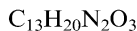
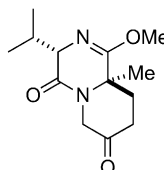
(3*S*,9*aS*)-3-Isopropyl-1-methoxy-9*a*-propyl-3,8,9,9*a*-tetrahydropyrido[1,2-*a*]pyrazine-4,7-dione

Ee = >95%

$[\alpha]_{\text{D}}^{20} = -185.7$ (c 1.00, CHCl₃)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (3*S*,9*aS*)



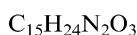
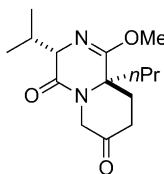
(3*S*,9*aR*)-3-Isopropyl-1-methoxy-9*a*-methyl-3,8,9,9*a*-tetrahydropyrido[1,2-*a*]pyrazine-4,7-dione

Ee = >95%

$[\alpha]_{\text{D}}^{20} = +72.5$ (c 1.00, CHCl₃)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (3*S*,9*aR*)



(3*S*,9*aR*)-3-Isopropyl-1-methoxy-9*a*-propyl-3,8,9,9*a*-tetrahydropyrido[1,2-*a*]pyrazine-4,7-dione

Ee = >95%

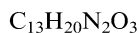
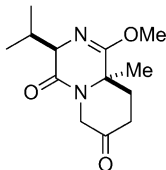
$[\alpha]_{\text{D}}^{20} = +112.5$ (c 0.90, CHCl₃)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (3*S*,9*aR*)

Mioara Andrei, Christian Römme and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 1359



(3*R*,9*aR*)-3-Isopropyl-1-methoxy-9a-methyl-3,8,9,9a-tetrahydropyrido[1,2-*a*]pyrazine-4,7-dione

Ee = >95%

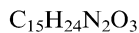
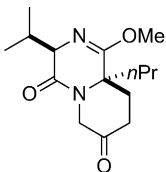
$[\alpha]_D^{20} = +170.5$ (c 1.00, CHCl₃)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (3*R*,9*aR*)

Mioara Andrei, Christian Römme and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 1359



(3*R*,9*aR*)-3-Isopropyl-1-methoxy-9a-propyl-3,8,9,9a-tetrahydropyrido[1,2-*a*]pyrazine-4,7-dione

Ee = >95%

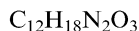
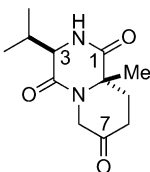
$[\alpha]_D^{20} = +184.2$ (c 1.00, CHCl₃)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (3*R*,9*aR*)

Mioara Andrei, Christian Römme and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 1359



(3*R*,9*aS*)-3-Isopropyl-9a-methyl-3,8,9,9a-tetrahydropyrido[1,2-*a*]pyrazine-1,4,7-trione

Ee = >95%

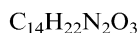
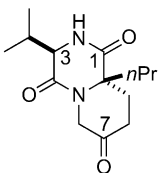
$[\alpha]_D^{20} = -36.6$ (c 0.72, CHCl₃)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (3*R*,9*aS*)

Mioara Andrei, Christian Römme and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 1359



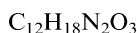
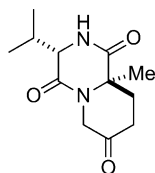
(3*R*,9*aS*)-3-Isopropyl-9a-propyl-3,8,9,9a-tetrahydropyrido[1,2-*a*]pyrazine-1,4,7-trione

Ee = >95%

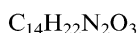
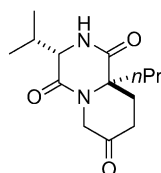
$[\alpha]_D^{20} = -34.8$ (c 1.00, CHCl₃)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

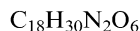
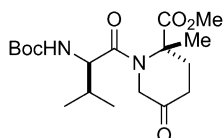
Absolute configuration: (3*R*,9*aS*)

(3*S*,9*aR*)-3-Isopropyl-9*a*-methyl-3,8,9,9*a*-tetrahydropyrido[1,2-*a*]pyrazine-1,4,7-trione

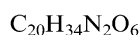
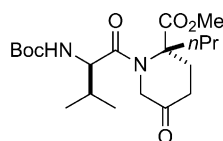
Ee = >95%

 $[\alpha]_{\text{D}}^{20} = +35.9$ (*c* 0.72, CHCl₃)Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazineAbsolute configuration: (3*S*,9*aR*)(3*S*,9*aR*)-3-Isopropyl-9*a*-propyl-3,8,9,9*a*-tetrahydropyrido[1,2-*a*]pyrazine-1,4,7-trione

Ee = >95%

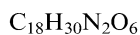
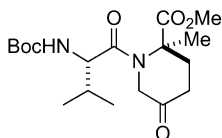
 $[\alpha]_{\text{D}}^{20} = +35.3$ (*c* 1.00, CHCl₃)Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazineAbsolute configuration: (3*S*,9*aR*)(2*S*,2'*R*)-1-(2-*tert*-Butoxycarbonylamino-3-methylbutyryl)-2-methyl-5-oxopiperidine-2-carboxylic acid methyl ester

Ee = >95%

 $[\alpha]_{\text{D}}^{20} = -32.7$ (*c* 0.66, CHCl₃)Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazineAbsolute configuration: (2*S*,2'*R*)(2*S*,2'*R*)-1-(2-*tert*-Butoxycarbonylamino-3-methylbutyryl)-5-oxo-2-propylpiperidine-2-carboxylic acid methyl ester

Ee = >95%

 $[\alpha]_{\text{D}}^{20} = -39.9$ (*c* 1.00, CHCl₃)Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazineAbsolute configuration: (2*S*,2'*R*)



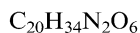
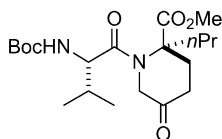
(2*R*,2'*S*)-1-(2-*tert*-Butoxycarbonylamino-3-methylbutyryl)-2-methyl-5-oxopiperidine-2-carboxylic acid methyl ester

Ee = >95%

$[\alpha]_{\text{D}}^{20} = +31.9$ (c 0.66, CHCl_3)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

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



(2*R*,2'*S*)-1-(2-*tert*-Butoxycarbonylamino-3-methylbutyryl)-5-oxo-2-propylpiperidine-2-carboxylic acid methyl ester

Ee = >95%

$[\alpha]_{\text{D}}^{20} = +39.2$ (c 1.00, CHCl_3)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

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