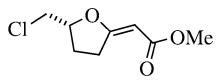
Esen Bellur, Dominique Böttcher, Uwe Bornscheuer* and Peter Langer*

Tetrahedron: Asymmetry *17 (2006) 892*

Ee = 98%
$[\alpha]_D^{20} = -66$ (*c* 1, $CHCl_3$)
Source of chirality: enantiospecific reaction

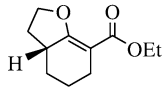


$C_8H_{11}ClO_3$
(−)-(*E*)-Methyl 2-((*R*)-5-(chloromethyl)-dihydrofuran-2(3*H*)-ylidene)acetate

Esen Bellur, Dominique Böttcher, Uwe Bornscheuer* and Peter Langer*

Tetrahedron: Asymmetry *17 (2006) 892*

Ee = 97%
$[\alpha]_D^{20} = -110$ (*c* 1, $CDCl_3$)
Source of chirality: enzymatic resolution

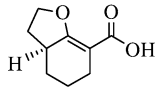


$C_{11}H_{16}O_3$
(−)-Ethyl 2,3,3a,4,5,6-hexahydrobenzofuran-7-carboxylate

Esen Bellur, Dominique Böttcher, Uwe Bornscheuer* and Peter Langer*

Tetrahedron: Asymmetry *17 (2006) 892*

Ee = 53%
$[\alpha]_D^{20} = +29$ (*c* 1, $CDCl_3$)
Source of chirality: enzymatic resolution

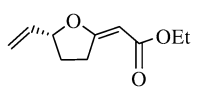


$C_9H_{12}O_3$
(+)-2,3,3a,4,5,6-Hexahydrobenzofuran-7-carboxylic acid

Esen Bellur, Dominique Böttcher, Uwe Bornscheuer* and Peter Langer*

Tetrahedron: Asymmetry *17 (2006) 892*

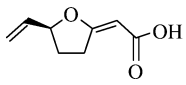
Ee = 97%
$[\alpha]_D^{20} = -94$ (*c* 1, $CDCl_3$)
Source of chirality: enzymatic resolution



$C_{10}H_{14}O_3$
(−)-(*E*)-Ethyl 2-(dihydro-5-vinylfuran-2(3*H*)-ylidene)acetate

Esen Bellur, Dominique Böttcher, Uwe Bornscheuer* and Peter Langer*

Tetrahedron: Asymmetry *17 (2006) 892*



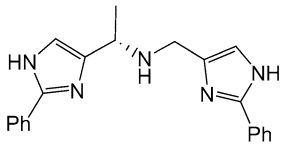
$C_8H_{10}O_3$

(−)-(*E*)-2-(Dihydro-5-vinylfuran-2(3*H*)-ylidene)acetic acid

Ee = not detected
$[\alpha]_D^{20} = -16$ (*c* 1, $CDCl_3$)
Source of chirality: enzymatic resolution

Filip Bureš,* Tomáš Szotkowski, Jiří Kulhánek, Oldřich Pytela, Miroslav Ludwig and Michal Holčapek

Tetrahedron: Asymmetry *17 (2006) 900*



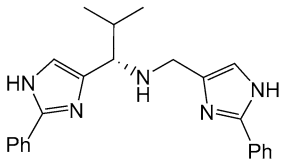
$C_{21}H_{21}N_5$

(1*S*)-1-(2-Phenyl-1*H*-imidazol-4-yl)-*N*-(2-phenyl-1*H*-imidazol-4-ylmethyl) ethanamine

Ee = 99%
$[\alpha]_D^{20} = -43.0$ (*c* 0.5, CH_3OH)
Source of chirality: (*S*)-Ala
Absolute configuration: (*S*)

Filip Bureš,* Tomáš Szotkowski, Jiří Kulhánek, Oldřich Pytela, Miroslav Ludwig and Michal Holčapek

Tetrahedron: Asymmetry *17 (2006) 900*



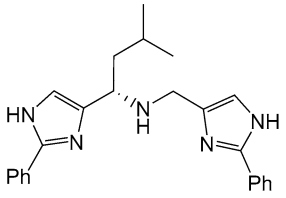
$C_{23}H_{25}N_5$

(1*S*)-2-Methyl-1-(2-phenyl-1*H*-imidazol-4-yl)-*N*-(2-phenyl-1*H*-imidazol-4-ylmethyl) propanamine

Ee = 99%
$[\alpha]_D^{20} = -66.2$ (*c* 0.5, CH_3OH)
Source of chirality: (*S*)-Val
Absolute configuration: (*S*)

Filip Bureš,* Tomáš Szotkowski, Jiří Kulhánek, Oldřich Pytela, Miroslav Ludwig and Michal Holčapek

Tetrahedron: Asymmetry *17 (2006) 900*



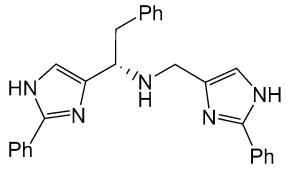
$C_{24}H_{27}N_5$

(1*S*)-3-Methyl-1-(2-phenyl-1*H*-imidazol-4-yl)-*N*-(2-phenyl-1*H*-imidazol-4-ylmethyl) butanamine

Ee = 99%
$[\alpha]_D^{20} = -30.8$ (*c* 0.5, CH_3OH)
Source of chirality: (*S*)-Leu
Absolute configuration: (*S*)

Filip Bureš,* Tomáš Szotkowski, Jiří Kulhánek, Oldřich Pytela, Miroslav Ludwig and Michal Holčapek

Tetrahedron: Asymmetry *17 (2006) 900*



Ee = 99%
$[\alpha]_D^{20} = -10.0$ (*c* 0.5, CH_3OH)
Source of chirality: (*S*)-Phe
Absolute configuration: (*S*)

$C_{27}H_{25}N_5$

(1*S*)-2-Phenyl-1-(2-phenyl-1*H*-imidazol-4-yl)-*N*-(2-phenyl-1*H*-imidazol-4-ylmethyl) ethanamine

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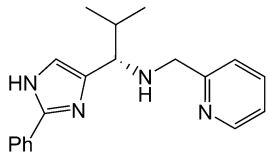
Filip Bureš,* Tomáš Szotkowski, Jiří Kulhánek, Oldřich Pytela, Miroslav Ludwig and Michal Holčapek

Tetrahedron: Asymmetry *17 (2006) 900*



Ee = 99%
$[\alpha]_D^{20} = -49.8$ (*c* 0.5, CH_3OH)
Source of chirality: (*S*)-Val
Absolute configuration: (*S*)

$C_{19}H_{22}N_4$

(1*S*)-2-Methyl-1-(2-phenyl-1*H*-imidazol-4-yl)-*N*-(pyridine-2-ylmethyl) propanamine

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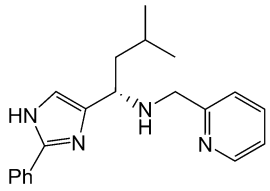
Filip Bureš,* Tomáš Szotkowski, Jiří Kulhánek, Oldřich Pytela, Miroslav Ludwig and Michal Holčapek

Tetrahedron: Asymmetry *17 (2006) 900*



Ee = 99%
$[\alpha]_D^{20} = -29.4$ (*c* 0.5, CH_3OH)
Source of chirality: (*S*)-Leu
Absolute configuration: (*S*)

$C_{20}H_{24}N_4$

(1*S*)-3-Methyl-1-(2-phenyl-1*H*-imidazol-4-yl)-*N*-(pyridine-2-ylmethyl) butanamine

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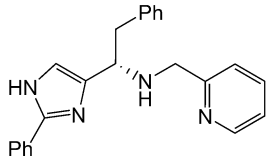
Filip Bureš,* Tomáš Szotkowski, Jiří Kulhánek, Oldřich Pytela, Miroslav Ludwig and Michal Holčapek

Tetrahedron: Asymmetry *17 (2006) 900*



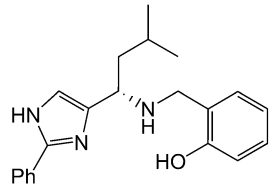
Ee = 99%
$[\alpha]_D^{20} = 34.0$ (*c* 0.5, CH_3OH)
Source of chirality: (*S*)-Phe
Absolute configuration: (*S*)

$C_{23}H_{22}N_4$

(1*S*)-2-Phenyl-1-(2-phenyl-1*H*-imidazol-4-yl)-*N*-(pyridine-2-ylmethyl) ethanamine

Filip Bureš,* Tomáš Szotkowski, Jiří Kulhánek, Oldřich Pytela, Miroslav Ludwig and Michal Holčapek

Tetrahedron: Asymmetry *17 (2006) 900*

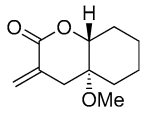


Ee = 99%
$[\alpha]_D^{20} = -28.0$ (*c* 0.5, CH_3OH)
Source of chirality: (*S*)-Leu
Absolute configuration: (*S*)

$C_{21}H_{25}N_3O$
2-[(1*S*)-*N*-(3-Methyl-1-(2-phenyl-1*H*-imidazol-4-yl)butyl)aminomethyl]phenol

Henryk Krawczyk,* Marcin Śliwiński, Jacek Kędzia, Jakub Wojciechowski and Wojciech M. Wolf

Tetrahedron: Asymmetry *17 (2006) 908*

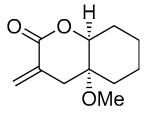


Ee = 96%
$[\alpha]_D^{25} = +80.0$ (*c* 0.65, MeOH)
Source of chirality: asymmetric synthesis
Absolute configuration: (4a*R*,8a*R*)

$C_{11}H_{16}O_3$
(4a*R*,8a*R*)-4a-Methoxy-3-methylene-octahydrochromen-2-one

Henryk Krawczyk,* Marcin Śliwiński, Jacek Kędzia, Jakub Wojciechowski and Wojciech M. Wolf

Tetrahedron: Asymmetry *17 (2006) 908*

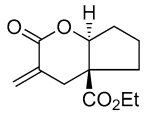


Ee = 96%
$[\alpha]_D^{25} = +4.2$ (*c* 1.12, MeOH)
Source of chirality: asymmetric synthesis
Absolute configuration: (4a*S*,8a*S*)

$C_{11}H_{16}O_3$
(4a*R*,8a*S*)-4a-Methoxy-3-methylene-octahydrochromen-2-one

Henryk Krawczyk,* Marcin Śliwiński, Jacek Kędzia, Jakub Wojciechowski and Wojciech M. Wolf

Tetrahedron: Asymmetry *17 (2006) 908*

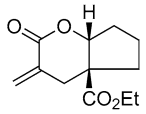


Ee = 97%
$[\alpha]_D^{25} = -40.0$ (*c* 0.28, MeOH)
Source of chirality: asymmetric synthesis
Absolute configuration: (4a*S*,7a*S*)

$C_{12}H_{16}O_4$
(4a*S*,7a*S*)-Ethyl 3-methylene-2-oxo-octahydrocyclopenta[*b*]pyran-4a-carboxylate

Henryk Krawczyk,* Marcin Śliwiński, Jacek Kędzia, Jakub Wojciechowski and Wojciech M. Wolf

Tetrahedron: Asymmetry *17 (2006) 908*



$C_{12}H_{16}O_4$

(4a*S*,7a*R*)-Ethyl 3-methylene-2-oxo-octahydrocyclopenta[*b*]pyran-4a-carboxylate

Ee = 97%

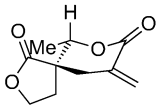
$[\alpha]_D^{25} = -46.3$ (*c* 0.82, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (4a*S*,7a*R*)

Henryk Krawczyk,* Marcin Śliwiński, Jacek Kędzia, Jakub Wojciechowski and Wojciech M. Wolf

Tetrahedron: Asymmetry *17 (2006) 908*



$C_{12}H_{16}O_4$

(5*R*,6*S*)-6-Methyl-9-methylene-2,7-dioxa-spiro[4.5]decane-1,8-dione

Ee = 90%

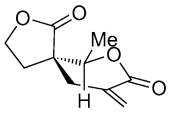
$[\alpha]_D^{25} = -62.7$ (*c* 0.69, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (5*R*,6*S*)

Henryk Krawczyk,* Marcin Śliwiński, Jacek Kędzia, Jakub Wojciechowski and Wojciech M. Wolf

Tetrahedron: Asymmetry *17 (2006) 908*



$C_{12}H_{16}O_4$

(5*R*,6*R*)-6-Methyl-9-methylene-2,7-dioxa-spiro[4.5]decane-1,8-dione

Ee = 90%

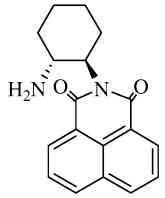
$[\alpha]_D^{25} = +40.4$ (*c* 0.48, MeOH)

Source of chirality: asymmetric synthesis

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

Xuemei Yang, Guitao Wang, Cheng Zhong, Xiaojun Wu and Enqin Fu*

Tetrahedron: Asymmetry *17 (2006) 916*



$C_{18}H_{18}N_2O_2$

(1*R*,2*R*)-1-(1′,8′-Naphthalimide)-2-aminocyclohexane

Ee 100%

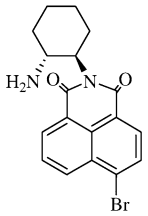
$[\alpha]_D^{20} = +2.3$ (*c* 2.50, $CHCl_3$)

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

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

Xuemei Yang, Guitao Wang, Cheng Zhong, Xiaojun Wu and Enqin Fu*

Tetrahedron: Asymmetry *17 (2006) 916*



$C_{18}H_{17}BrN_2O_2$

(1*R*,2*R*)-1-(4′-Bromo-1′,8′-naphthalimide)-2-aminocyclohexane

Ee 100%

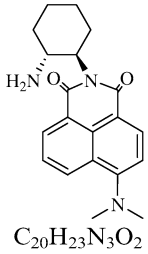
$[\alpha]_D^{20} = -12.8$ (*c* 0.065, $CHCl_3$)

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

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

Xuemei Yang, Guitao Wang, Cheng Zhong, Xiaojun Wu and Enqin Fu*

Tetrahedron: Asymmetry *17 (2006) 916*



$C_{20}H_{23}N_3O_2$

(1*R*,2*R*)-1-(4′-Dimethylamino-1′,8′-naphthalimide)-2-aminocyclohexane

Ee 100%

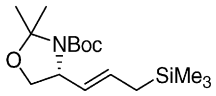
$[\alpha]_D^{20} = -16.0$ (*c* 0.025, $CHCl_3$)

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

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

Gianna Reginato,* Alessandro Mordini, Patrick Meffre, Alice Tenti, Michela Valacchi and Kevin Cariou

Tetrahedron: Asymmetry *17 (2006) 922*



$C_{16}H_{31}NO_3Si$

(4*R*)-2,2-Dimethyl-4-(*E*-3-trimethylsilanyl-propenyl)-oxazolidine-3-carboxylic acid *tert*-butyl ester

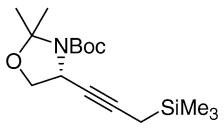
$[\alpha]_D^{26} = -22.0$ (*c* 1.31, $CHCl_3$)

Source of chirality: L-serine

Absolute configuration: (*R*)

Gianna Reginato,* Alessandro Mordini, Patrick Meffre, Alice Tenti, Michela Valacchi and Kevin Cariou

Tetrahedron: Asymmetry *17 (2006) 922*



$C_{16}H_{29}NO_3Si$

(4*R*)-2,2-Dimethyl-4-(3-trimethylsilanyl-prop-1-ynyl)-oxazolidine-3-carboxylic acid *tert*-butyl ester

$[\alpha]_D^{24} = -108.5$ (*c* 1.38, $CHCl_3$)

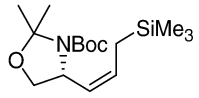
Source of chirality: L-serine

Absolute configuration: (*R*)

Gianna Reginato,* Alessandro Mordini, Patrick Meffre, Alice Tenti, Michela Valacchi and Kevin Cariou

Tetrahedron: Asymmetry *17 (2006) 922*

$[\alpha]_D^{25} = -152.3$ (c 0.7, $CHCl_3$)
Source of chirality: L-serine
Absolute configuration: (*R*)



$C_{16}H_{31}NO_3Si$

(4*R*)-2,2-Dimethyl-4-(*Z*-3-trimethylsilanyl-propenyl)-oxazolidine-3-carboxylic acid *tert*-butyl ester

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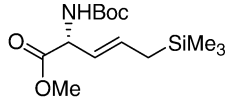
Gianna Reginato,* Alessandro Mordini, Patrick Meffre, Alice Tenti, Michela Valacchi and Kevin Cariou

Tetrahedron: Asymmetry *17 (2006) 922*

$[\alpha]_D^{24} = -125.4$ (c 0.69, $CHCl_3$)
Source of chirality: L-serine
Absolute configuration: (*R*)



$C_{13}H_{27}NO_3Si$

(2*R*)-2-*tert*-Butoxycarbonylamino-5-trimethylsilanyl-*E*-pent-3-enoic acid methyl ester

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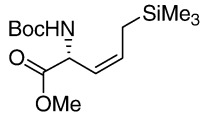
Gianna Reginato,* Alessandro Mordini, Patrick Meffre, Alice Tenti, Michela Valacchi and Kevin Cariou

Tetrahedron: Asymmetry *17 (2006) 922*

$[\alpha]_D^{24} = -81.2$ (c 0.52, $CHCl_3$)
Source of chirality: L-serine
Absolute configuration: (*R*)



$C_{13}H_{27}NO_3Si$

(2*R*)-2-*tert*-Butoxycarbonylamino-5-trimethylsilanyl-*Z*-pent-3-enoic acid methyl ester

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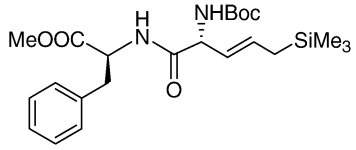
Gianna Reginato,* Alessandro Mordini, Patrick Meffre, Alice Tenti, Michela Valacchi and Kevin Cariou

Tetrahedron: Asymmetry *17 (2006) 922*

$[\alpha]_D^{25} = -11.2$ (c 0.69, $CHCl_3$)
Source of chirality: L-serine, L-phenylalanine
Absolute configuration: (2*S*,2′*R*)

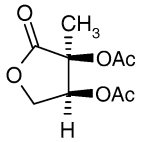


$C_{23}H_{36}N_2O_5Si$

(2*S*,2′*R*)-2-(2′-*tert*-Butoxycarbonylamino-5-trimethylsilanyl-*E*-pent-3-enoylamino)-3-phenyl-propionic acid methyl ester

Sanjib Gogoi and Narshinha P. Argade*

Tetrahedron: Asymmetry *17 (2006) 927*

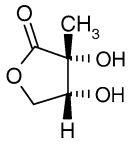


Ee = 99%
$[\alpha]_D^{20} = +9.0$ (*c* 1.6, $CHCl_3$)
Source of chirality: enzyme 'Amano PS'
Absolute configuration: 2*S*,3*S*

$C_9H_{12}O_6$
(+)-(2*S*,3*S*)-2,3-Di-*O*-acetyl-2-*C*-methyl-D-erythrono-1,4-lactone

Sanjib Gogoi and Narshinha P. Argade*

Tetrahedron: Asymmetry *17 (2006) 927*

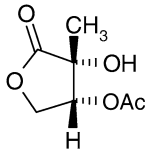


Ee = 99%
$[\alpha]_D^{20} = -58.6$ (*c* 0.50, H_2O)
Source of chirality: enzyme 'Amano PS'
Absolute configuration: 3*R*,4*R*

$C_5H_8O_4$
(−)-(3*R*,4*R*)-3,4-Dihydroxy-3-methyldihydrofuran-2-one

Sanjib Gogoi and Narshinha P. Argade*

Tetrahedron: Asymmetry *17 (2006) 927*



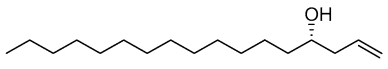
Ee = 99%
$[\alpha]_D^{20} = -44.0$ (*c* 0.20, $CHCl_3$)
Source of chirality: enzyme 'Amano PS'
Absolute configuration: 3*R*,4*R*

$C_7H_{10}O_5$
(−)-(3*R*,4*R*)-Acetic acid 4-hydroxy-4-methyl-5-oxotetrahydrofuran-3-yl ester

Jie Chen, Yang Li and Xiao-Ping Cao*

Tetrahedron: Asymmetry *17 (2006) 933*

$[\alpha]_D^{17} = -5$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric allylation
Absolute configuration: *S*

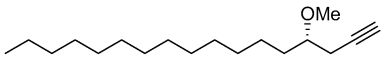


$C_{17}H_{34}O$
(*S*)-4-Hydroxy-1-heptadecene

Jie Chen, Yang Li and Xiao-Ping Cao*

Tetrahedron: Asymmetry *17 (2006) 933*

$[\alpha]_D^{17} = -20$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric allylation
Absolute configuration: *S*

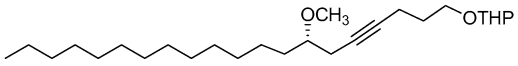


$C_{18}H_{34}O$
(*S*)-4-Methoxy-1-heptadecyne

Jie Chen, Yang Li and Xiao-Ping Cao*

Tetrahedron: Asymmetry *17 (2006) 933*

$[\alpha]_D^{16} = -18$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric allylation
Absolute configuration: *S*

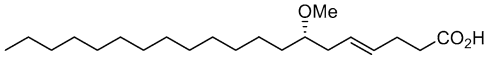


$C_{26}H_{48}O_3$
(*S*)-7-Methoxy-1-tetrahydropyranyloxy-4-icosyne

Jie Chen, Yang Li and Xiao-Ping Cao*

Tetrahedron: Asymmetry *17 (2006) 933*

$[\alpha]_D^{16} = -10$ (*c* 0.2, $CHCl_3$)
Source of chirality: asymmetric allylation
Absolute configuration: *S*

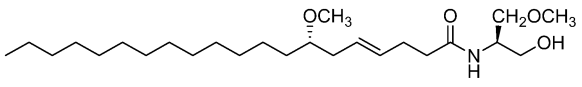


$C_{21}H_{40}O_3$
(4*E*,7*S*)-7-Methoxyicos-4-enoic acid

Jie Chen, Yang Li and Xiao-Ping Cao*

Tetrahedron: Asymmetry *17 (2006) 933*

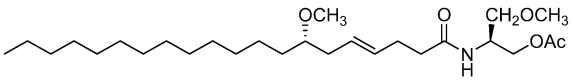
$[\alpha]_D^{16} = -4$ (*c* 0.35, $CHCl_3$)
Source of chirality: asymmetric allylation and D-serine
Absolute configuration: (7*S*,1′*R*)



$C_{25}H_{49}NO_4$
N-[(1*R*)-2-Hydroxy-1-methoxy-methyl ethyl]-(4*E*,7*S*)-7-methoxy-4-eicosenamide

Jie Chen, Yang Li and Xiao-Ping Cao*

Tetrahedron: Asymmetry *17 (2006) 933*



$[\alpha]_D^{16} = -8$ (*c* 0.35, $CHCl_3$)
Source of chirality: asymmetric allylation and D-serine
Absolute configuration: (7*S*,1′*S*)

$C_{27}H_{51}NO_5$

N-[(1*S*)-2-Acetyloxy-1-methoxy-methyl ethyl]-(4*E*,7*S*)-7-methoxy-4-eicosenamide

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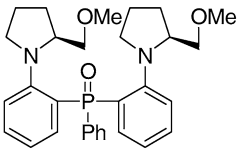
Biao Jiang,* Zuo-Gang Huang and Ke-Jun Cheng

Tetrahedron: Asymmetry *17 (2006) 942*



$[\alpha]_D^{20} = +43$ (*c* 1.00, $CHCl_3$)
Source of chirality: (*S*)-2-methoxylmethylpyrrolidine
Absolute configuration: 2*S*,2′*S*

$C_{30}H_{37}N_2O_3P$

Bis[2-(*S*)-(2-methoxylmethylpyrrolidinyl)phenyl]phenyl phosphine oxide

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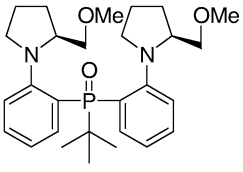
Biao Jiang,* Zuo-Gang Huang and Ke-Jun Cheng

Tetrahedron: Asymmetry *17 (2006) 942*



$[\alpha]_D^{20} = +143$ (*c* 1.02, $CHCl_3$)
Source of chirality: (*S*)-2-methoxylmethylpyrrolidine
Absolute configuration: 2*S*,2′*S*

$C_{28}H_{41}N_2O_3P$

tert-Butyl bis[2-(*S*)-(2-methoxylmethylpyrrolidinyl)phenyl]phosphine oxide

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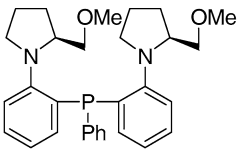
Biao Jiang,* Zuo-Gang Huang and Ke-Jun Cheng

Tetrahedron: Asymmetry *17 (2006) 942*



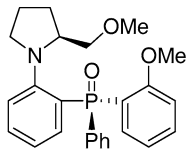
$[\alpha]_D^{20} = -165$ (*c* 1.05, $CHCl_3$)
Source of chirality: (*S*)-2-methoxylmethylpyrrolidine
Absolute configuration: 2*S*,2′*S*

$C_{30}H_{37}N_2O_2P$

Bis[2-(*S*)-(2-methoxylmethylpyrrolidinyl)phenyl]phenyl phosphine

Biao Jiang,* Zuo-Gang Huang and Ke-Jun Cheng

Tetrahedron: Asymmetry *17 (2006) 942*

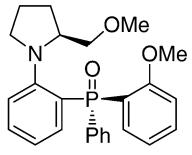


$[\alpha]_D^{20} = +146$ (c 1.05, $CHCl_3$)
Source of chirality: (*S*)-2-methoxylmethylpyrrolidine
Absolute configuration: *S*,*Sp*

$C_{25}H_{28}NO_3P$
(*Sp*)-[2-(*S*)-(2-Methoxylmethylpyrrolidinyl)phenyl] (2-methoxyl-phenyl)phenyl phosphine oxide

Biao Jiang,* Zuo-Gang Huang and Ke-Jun Cheng

Tetrahedron: Asymmetry *17 (2006) 942*

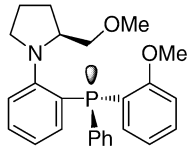


$[\alpha]_D^{20} = -5$ (c 1.00, $CHCl_3$)
Source of chirality: (*S*)-2-methoxylmethylpyrrolidine
Absolute configuration: *S*,*Rp*

$C_{25}H_{28}NO_3P$
(*Rp*)-[2-(*S*)-(2-Methoxylmethylpyrrolidinyl)phenyl] (2-methoxyl-phenyl)phenyl phosphine oxide

Biao Jiang,* Zuo-Gang Huang and Ke-Jun Cheng

Tetrahedron: Asymmetry *17 (2006) 942*

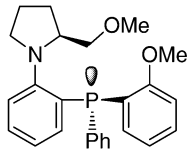


$[\alpha]_D^{20} = -43$ (c 0.84, $CHCl_3$)
Source of chirality: (*S*)-2-methoxylmethylpyrrolidine
Absolute configuration: *S*,*Rp*

$C_{25}H_{28}NO_2P$
(*Rp*)-[2-(*S*)-(2-Methoxylmethylpyrrolidinyl)phenyl] (2-methoxyl-phenyl)phenyl phosphine oxide

Biao Jiang,* Zuo-Gang Huang and Ke-Jun Cheng

Tetrahedron: Asymmetry *17 (2006) 942*

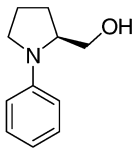


$[\alpha]_D^{20} = -105$ (c 0.94, $CHCl_3$)
Source of chirality: (*S*)-2-methoxylmethylpyrrolidine
Absolute configuration: *S*,*Sp*

$C_{25}H_{28}NO_2P$
(*Sp*)-[2-(*S*)-(2-Methoxylmethylpyrrolidinyl)phenyl] (2-methoxyl-phenyl)phenyl phosphine oxide

Biao Jiang,* Zuo-Gang Huang and Ke-Jun Cheng

Tetrahedron: Asymmetry *17 (2006) 942*



$C_{11}H_{15}NO$

(*S*)-(1-Phenylpyrrolidin-2-yl)methanol

>99.8%

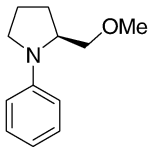
$[\alpha]_D^{20} = -119$ (*c* 1.15, $CHCl_3$)

Source of chirality: (*S*)-proline

Absolute configuration: *S*

Biao Jiang,* Zuo-Gang Huang and Ke-Jun Cheng

Tetrahedron: Asymmetry *17 (2006) 942*



$C_{12}H_{17}NO$

(*S*)-2-(Methoxymethyl)-1-phenylpyrrolidine

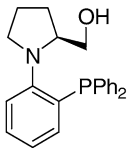
$[\alpha]_D^{20} = -155$ (*c* 1.04, $CHCl_3$)

Source of chirality: (*S*)-proline

Absolute configuration: *S*

Biao Jiang,* Zuo-Gang Huang and Ke-Jun Cheng

Tetrahedron: Asymmetry *17 (2006) 942*



$C_{23}H_{24}NOP$

(*S*)-[1-(2-Diphenylphosphanylphenyl)pyrrolidin-2-yl]methanol

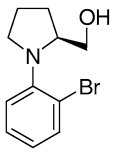
$[\alpha]_D^{20} = +3.4$ (*c* 1.05, $CHCl_3$)

Source of chirality: (*S*)-proline

Absolute configuration: *S*

Biao Jiang,* Zuo-Gang Huang and Ke-Jun Cheng

Tetrahedron: Asymmetry *17 (2006) 942*



$C_{11}H_{14}BrNO$

(*S*)-(1-(2-Bromophenyl)pyrrolidin-2-yl)methanol

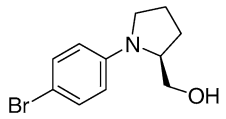
$[\alpha]_D^{20} = +51$ (*c* 1.16, $CHCl_3$)

Source of chirality: (*S*)-proline or (*S*)-prolinol

Absolute configuration: *S*

Biao Jiang,* Zuo-Gang Huang and Ke-Jun Cheng

Tetrahedron: Asymmetry *17 (2006) 942*

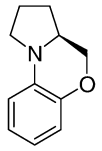


$C_{11}H_{14}BrNO$
(*S*)-(1-(4-Bromophenyl)pyrrolidin-2-yl)methanol

$[\alpha]_D^{20} = -79$ (*c* 0.98, $CHCl_3$)
Source of chirality: (*S*)-proline
Absolute configuration: *S*

Biao Jiang,* Zuo-Gang Huang and Ke-Jun Cheng

Tetrahedron: Asymmetry *17 (2006) 942*

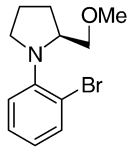


$C_{11}H_{13}NO$
(3a*S*)-2,3,3a,4-Tetrahydro-1*H*-5-oxa-9b-aza-cyclopenta[*a*]naphthalene

$[\alpha]_D^{20} = +46$ (*c* 1.19, $CHCl_3$)
Source of chirality: (*S*)-proline or (*S*)-prolinol
Absolute configuration: *S*

Biao Jiang,* Zuo-Gang Huang and Ke-Jun Cheng

Tetrahedron: Asymmetry *17 (2006) 942*

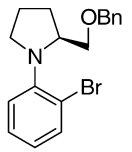


$C_{12}H_{16}BrNO$
(*S*)-1-(2-Bromophenyl)-2-(methoxymethyl)pyrrolidine

$[\alpha]_D^{20} = +23$ (*c* 1.30, $CHCl_3$)
Source of chirality: (*S*)-proline or (*S*)-prolinol
Absolute configuration: *S*

Biao Jiang,* Zuo-Gang Huang and Ke-Jun Cheng

Tetrahedron: Asymmetry *17 (2006) 942*

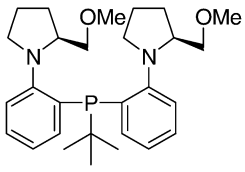


$C_{18}H_{20}BrNO$
(*S*)-2-(Benzyloxymethyl)-1-(2-bromophenyl)pyrrolidine

$[\alpha]_D^{20} = +3.8$ (*c* 1.01, $CHCl_3$)
Source of chirality: (*S*)-proline
Absolute configuration: *S*

Biao Jiang,* Zuo-Gang Huang and Ke-Jun Cheng

Tetrahedron: Asymmetry *17 (2006) 942*



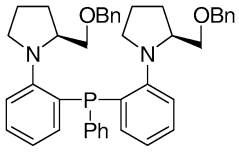
$C_{28}H_{41}N_2O_2P$

tert-Butyl bis[2-(*S*)-(2-methoxylmethylpyrrolidinyl)phenyl]phosphine

$[\alpha]_D^{20} = -125$ (*c* 1.10, $CHCl_3$)
Source of chirality: (*S*)-proline or (*S*)-prolinol
Absolute configuration: 2*S*,2′*S*

Biao Jiang,* Zuo-Gang Huang and Ke-Jun Cheng

Tetrahedron: Asymmetry *17 (2006) 942*



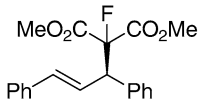
$C_{42}H_{45}N_2O_2P$

Bis-[2-(*S*)-(2-benzoxymethylpyrrolidinyl)phenyl]phenyl phosphine

$[\alpha]_D^{20} = -78$ (*c* 0.90, $CHCl_3$)
Source of chirality: (*S*)-prolinol
Absolute configuration: 2*S*,2′*S*

Biao Jiang,* Zuo-Gang Huang and Ke-Jun Cheng

Tetrahedron: Asymmetry *17 (2006) 942*



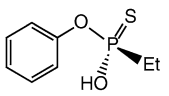
$C_{20}H_{19}FO_4$

(*R*,*E*)-Dimethyl 2-(1,3-diphenylallyl)-2-fluoromalonate

84%
$[\alpha]_D^{20} = +35$ (*c* 0.22, $CHCl_3$)
Absolute configuration: *R*

Yuka Kobayashi,* Jin Maeda, Fumi Morisawa and Kazuhiko Saigo*

Tetrahedron: Asymmetry *17 (2006) 967*



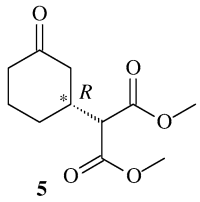
$C_8H_{11}O_2PS$

(*Rp*)-*O*-Phenyl ethylphosphonothioic acid

Ee >99%
$[\alpha]_D^{20} = -9.9$ (*c* 1.23, MeOH)
Source of chirality: (*R*)-phenylethylamine
Absolute configuration: *Rp*

Nikolay T. Tzvetkov, Philip Schmoldt, Beate Neumann, Hans-Georg Stammler and Jochen Mattay*

Tetrahedron: Asymmetry *17 (2006) 993*



5

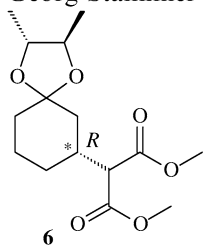
$C_{11}H_{16}O_5$

(*R*)-Dimethyl 2-(3-oxocyclohexyl)malonate

$[\alpha]_D^{28} = +3.6$ (*c* 2.28, $CHCl_3$) and
$[\alpha]_D^{28} = +3.3$ (*c* 1.00, $CHCl_3$)

Nikolay T. Tzvetkov, Philip Schmoldt, Beate Neumann, Hans-Georg Stammler and Jochen Mattay*

Tetrahedron: Asymmetry *17 (2006) 993*



6

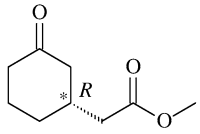
$C_{15}H_{24}O_6$

(*R*)-2-(2,3-Dimethyl-1,4-dioxaspiro[4,5]dec-7-yl)-dimethylmalonate

$[\alpha]_D^{28} = -12.9$ (*c* 1.00, $CHCl_3$)

Nikolay T. Tzvetkov, Philip Schmoldt, Beate Neumann, Hans-Georg Stammler and Jochen Mattay*

Tetrahedron: Asymmetry *17 (2006) 993*



7

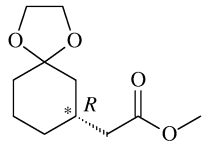
$C_9H_{14}O_3$

(*R*)-Methyl 2-(3-oxocyclohexyl)acetate

$[\alpha]_D^{28} = +8.9$ (*c* 1.00, $CHCl_3$)

Nikolay T. Tzvetkov, Philip Schmoldt, Beate Neumann, Hans-Georg Stammler and Jochen Mattay*

Tetrahedron: Asymmetry *17 (2006) 993*



8

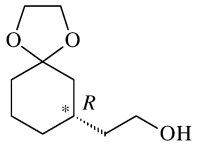
$C_{11}H_{18}O_4$

(*R*)-Methyl 2-(1,4-dioxaspiro[4.5]dec-7-yl)acetate

$[\alpha]_D^{28} = +3.1$ (*c* 1.00, $CHCl_3$)

Nikolay T. Tzvetkov, Philip Schmoldt, Beate Neumann, Hans-Georg Stammler and Jochen Mattay*

Tetrahedron: Asymmetry *17 (2006) 993*



9

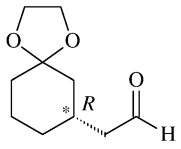
$[\alpha]_D^{28} = +3.3$ (*c* 1.00, $CHCl_3$)

$C_{10}H_{18}O_3$

(*R*)-2-(1,4-Dioxaspiro[4.5]dec-7-yl)-1-ethanol

Nikolay T. Tzvetkov, Philip Schmoldt, Beate Neumann, Hans-Georg Stammler and Jochen Mattay*

Tetrahedron: Asymmetry *17 (2006) 993*



10

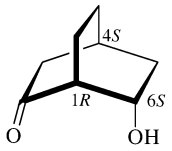
$[\alpha]_D^{28} = +1.5$ (*c* 1.00, $CHCl_3$)

$C_{10}H_{16}O_3$

(*R*)-2-(1,4-Dioxaspiro[4.5]dec-7-yl)acetaldehyde

Nikolay T. Tzvetkov, Philip Schmoldt, Beate Neumann, Hans-Georg Stammler and Jochen Mattay*

Tetrahedron: Asymmetry *17 (2006) 993*



(-)-**11**

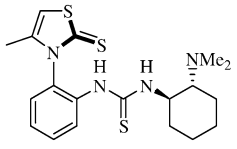
$[\alpha]_D^{21} = -5.2$ (*c* 1.00, $CHCl_3$)

$C_8H_{12}O_2$

(1*R*,4*S*,6*S*)-6-Hydroxybicyclo[2.2.2]octan-2-one

Rebecca M. Steele, Chiara Monti, Cesare Gennari,* Umberto Piarulli,* Federico Andreoli, Nicolas Vanthuyne and Christian Roussel

Tetrahedron: Asymmetry *17 (2006) 999*



$[\alpha]_D^{22} = -485.0$ (*c* 1.0, $CHCl_3$)

Source of chirality: (a*R*)-3-(2-isothiocyanato-phenyl)-4-methyl-thiazoline-2-thione and (1*R*,2*R*)-1-amino-2-(dimethylamino)cyclohexane

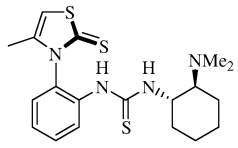
Absolute configuration: (a*R*,1*R*,2*R*)

$C_{19}H_{26}N_4S_3$

(a*R*)-1-((1*R*,2*R*)-Dimethylamino-cyclohexyl)-3-[2-(4-methyl-2-thioxo-thiazol-3-yl)-phenyl]-thiourea

Rebecca M. Steele, Chiara Monti, Cesare Gennari,* Umberto Piarulli,* Federico Andreoli, Nicolas Vanthuyne and Christian Roussel

Tetrahedron: Asymmetry *17 (2006) 999*



$[\alpha]_D^{22} = -358.0$ (c 1.0, $CHCl_3$)

Source of chirality: (a*R*)-3-(2-isothiocyanato-phenyl)-4-methyl-thiazoline-2-thione and (1*S*,2*S*)-1-amino-2-(dimethylamino)cyclohexane

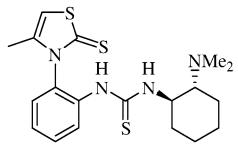
Absolute configuration: (a*R*,1*S*,2*S*)

$C_{19}H_{26}N_4S_3$

(a*R*)-1-((1*S*,2*S*)-Dimethylamino-cyclohexyl)-3-[2-(4-methyl-2-thioxo-thiazol-3-yl)-phenyl]-thiourea

Rebecca M. Steele, Chiara Monti, Cesare Gennari,* Umberto Piarulli,* Federico Andreoli, Nicolas Vanthuyne and Christian Roussel

Tetrahedron: Asymmetry *17 (2006) 999*



$[\alpha]_D^{22} = -18.5$ (c 1.0, $CHCl_3$)

Source of chirality: (a*R*/a*S*)-3-(2-isothiocyanato-phenyl)-4-methyl-thiazoline-2-thione and (1*R*,2*R*)-1-amino-2-(dimethylamino)cyclohexane

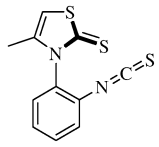
Absolute configuration: (a*R*/a*S*,1*R*,2*R*)

$C_{19}H_{26}N_4S_3$

(a*R*/a*S*)-1-((1*R*,2*R*)-Dimethylamino-cyclohexyl)-3-[2-(4-methyl-2-thioxo-thiazol-3-yl)-phenyl]-thiourea

Rebecca M. Steele, Chiara Monti, Cesare Gennari,* Umberto Piarulli,* Federico Andreoli, Nicolas Vanthuyne and Christian Roussel

Tetrahedron: Asymmetry *17 (2006) 999*



$[\alpha]_D^{23} = -20.1$ (c 0.5, $CHCl_3$)

Source of chirality: (a*R*)-3-(2-aminophenyl)-4-methyl-thiazoline-2-thione

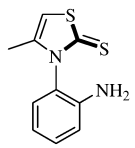
Absolute configuration: (a*R*)

$C_{11}H_8N_2S_3$

(a*R*)-3-(2-Isothiocyanato-phenyl)-4-methyl-thiazoline-2-thione

Rebecca M. Steele, Chiara Monti, Cesare Gennari,* Umberto Piarulli,* Federico Andreoli, Nicolas Vanthuyne and Christian Roussel

Tetrahedron: Asymmetry *17 (2006) 999*



$[\alpha]_D^{25} = -397.0$ (c 0.5, $CHCl_3$)

Source of chirality: separation by semi-preparative chiral HPLC

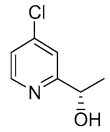
Absolute configuration: (a*R*)

$C_{10}H_{10}N_2S_2$

(a*R*)-3-(2-Aminophenyl)-4-methyl-thiazoline-2-thione

Eduardo Busto, Vicente Gotor-Fernández and Vicente Gotor*

Tetrahedron: Asymmetry *17 (2006) 1007*



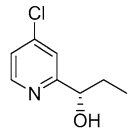
C_7H_8NOCl

(*S*)-(−)-4-Chloro-2-(1-hydroxyethyl)pyridine

Ee 99% (HPLC, Chiralcel OB-H)
$[\alpha]_D^{20} = -36.1$ (*c* 2, $CHCl_3$)
Source of chirality: bioreduction
Absolute configuration: *S*

Eduardo Busto, Vicente Gotor-Fernández and Vicente Gotor*

Tetrahedron: Asymmetry *17 (2006) 1007*



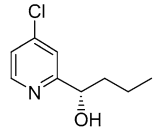
$C_8H_{10}NOCl$

(*S*)-(−)-4-Chloro-2-(1-hydroxypropyl)pyridine

Ee 99% (HPLC, Chiralcel OB-H)
$[\alpha]_D^{20} = -29.4$ (*c* 2, $CHCl_3$)
Source of chirality: bioreduction
Absolute configuration: *S*

Eduardo Busto, Vicente Gotor-Fernández and Vicente Gotor*

Tetrahedron: Asymmetry *17 (2006) 1007*



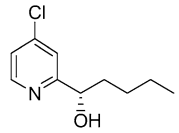
$C_9H_{12}NOCl$

(*S*)-(−)-4-Chloro-2-(1-hydroxybutyl)pyridine

Ee 99% (HPLC, Chiralcel OB-H)
$[\alpha]_D^{20} = -41.7$ (*c* 2, $CHCl_3$)
Source of chirality: bioreduction
Absolute configuration: *S*

Eduardo Busto, Vicente Gotor-Fernández and Vicente Gotor*

Tetrahedron: Asymmetry *17 (2006) 1007*



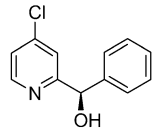
$C_{10}H_{14}NOCl$

(*S*)-(−)-4-Chloro-2-(1-hydroxypentyl)pyridine

Ee 99% (HPLC, Chiralcel OB-H)
$[\alpha]_D^{20} = -45.8$ (*c* 2, $CHCl_3$)
Source of chirality: bioreduction
Absolute configuration: *S*

Eduardo Busto, Vicente Gotor-Fernández and Vicente Gotor*

Tetrahedron: Asymmetry *17 (2006) 1007*

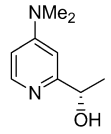


$C_{12}H_{10}NOCl$
(*R*)-(−)-4-Chloro-2-(1-hydroxybenzyl)pyridine

Ee 97% (HPLC, Chiralcel OD)
$[\alpha]_D^{20} = -43.4$ (*c* 2, $CHCl_3$)
Source of chirality: bioreduction
Absolute configuration: *R*

Eduardo Busto, Vicente Gotor-Fernández and Vicente Gotor*

Tetrahedron: Asymmetry *17 (2006) 1007*



$C_9H_{14}N_2O$
(*S*)-(−)-4-(*N*,*N*-Dimethylamino)-2-(1-hydroxyethyl)pyridine

Ee 99% (HPLC, Chiralcel OD)
$[\alpha]_D^{20} = -31.5$ (*c* 1, EtOH)
Source of chirality: enzymatic kinetic resolution
Absolute configuration: *S*

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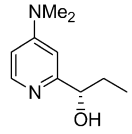
Tetrahedron: Asymmetry *17 (2006) 1007*

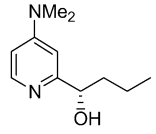


$C_{10}H_{16}N_2O$
(*S*)-(−)-4-(*N*,*N*-Dimethylamino)-2-(1-hydroxypropyl)pyridine

Ee 99%
$[\alpha]_D^{20} = -19.9$ (*c* 1, EtOH)
Source of chirality: enzymatic kinetic resolution
Absolute configuration: *S*

Eduardo Busto, Vicente Gotor-Fernández and Vicente Gotor*

Tetrahedron: Asymmetry *17 (2006) 1007*

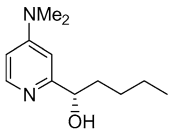


$C_{11}H_{18}N_2O$
(*S*)-(−)-4-(*N*,*N*-Dimethylamino)-2-(1-hydroxybutyl)pyridine

Ee 99%
$[\alpha]_D^{20} = -26.7$ (*c* 1, EtOH)
Source of chirality: enzymatic kinetic resolution
Absolute configuration: *S*

Eduardo Busto, Vicente Gotor-Fernández and Vicente Gotor*

Tetrahedron: Asymmetry *17 (2006) 1007*

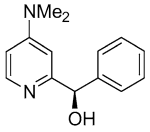


Ee 99%
$[\alpha]_D^{20} = -21.8$ (*c* 1, EtOH)
Source of chirality: enzymatic kinetic resolution
Absolute configuration: *S*

$C_{12}H_{20}N_2O$
(*S*)-(−)-4-(*N*,*N*-Dimethylamino)-2-(1-hydroxypentyl)pyridine

Eduardo Busto, Vicente Gotor-Fernández and Vicente Gotor*

Tetrahedron: Asymmetry *17 (2006) 1007*

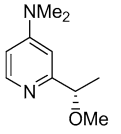


Ee 97% (HPLC, Chiralcel OD)
$[\alpha]_D^{20} = -24.1$ (*c* 1, EtOH)
Source of chirality: bioreduction
Absolute configuration: *R*

$C_{14}H_{16}N_2O$
(*R*)-(−)-4-(*N*,*N*-Dimethylamino)-2-(1-hydroxybenzyl)pyridine

Eduardo Busto, Vicente Gotor-Fernández and Vicente Gotor*

Tetrahedron: Asymmetry *17 (2006) 1007*

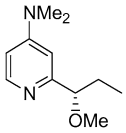


Ee 99%
$[\alpha]_D^{20} = -100.2$ (*c* 2.1, $CHCl_3$)
Source of chirality: enzymatic kinetic resolution
Absolute configuration: *S*

$C_{10}H_{16}N_2O$
(*S*)-(−)-4-(*N*,*N*-Dimethylamino)-2-[(1-methoxyethyl)pyridine]

Eduardo Busto, Vicente Gotor-Fernández and Vicente Gotor*

Tetrahedron: Asymmetry *17 (2006) 1007*

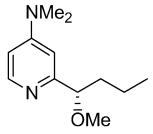


Ee 99%
$[\alpha]_D^{20} = -80.6$ (*c* 1.1, $CHCl_3$)
Source of chirality: enzymatic kinetic resolution
Absolute configuration: *S*

$C_{11}H_{18}N_2O$
(*S*)-(−)-4-(*N*,*N*-Dimethylamino)-2-[(1-methoxypropyl)pyridine]

Eduardo Busto, Vicente Gotor-Fernández and Vicente Gotor*

Tetrahedron: Asymmetry *17 (2006) 1007*

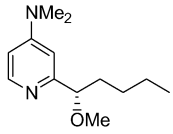


Ee 99%
$[\alpha]_D^{20} = -73.9$ (*c* 1.1, $CHCl_3$)
Source of chirality: enzymatic kinetic resolution
Absolute configuration: *S*

$C_{12}H_{20}N_2O$
(*S*)-(−)-4-(*N*,*N*-Dimethylamino)-2-[(1-methoxybutyl)pyridine]

Eduardo Busto, Vicente Gotor-Fernández and Vicente Gotor*

Tetrahedron: Asymmetry *17 (2006) 1007*

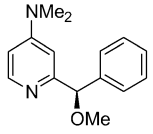


Ee 99% (HPLC, Chiralcel OD)
$[\alpha]_D^{20} = -77.5$ (*c* 1, $CHCl_3$)
Source of chirality: enzymatic kinetic resolution
Absolute configuration: *S*

$C_{13}H_{22}N_2O$
(*S*)-(−)-4-(*N*,*N*-Dimethylamino)-2-[(1-methoxypentyl)pyridine]

Eduardo Busto, Vicente Gotor-Fernández and Vicente Gotor*

Tetrahedron: Asymmetry *17 (2006) 1007*

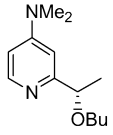


Ee 97% (HPLC, Chiralcel OD)
$[\alpha]_D^{20} = -62.9$ (*c* 1.5, $CHCl_3$)
Source of chirality: bioreduction
Absolute configuration: *R*

$C_{15}H_{18}N_2O$
(*R*)-(−)-4-(*N*,*N*-Dimethylamino)-2-[(1-methoxybenzyl)pyridine]

Eduardo Busto, Vicente Gotor-Fernández and Vicente Gotor*

Tetrahedron: Asymmetry *17 (2006) 1007*

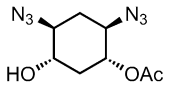


Ee 99%
$[\alpha]_D^{20} = -107.3$ (*c* 2.5, $CHCl_3$)
Source of chirality: enzymatic kinetic resolution
Absolute configuration: *S*

$C_{13}H_{22}N_2O$
(*S*)-(−)-4-(*N*,*N*-Dimethylamino)-2-[(1-butoxyethyl)pyridine]

Robert Chênevert* and Frédéric Jacques

Tetrahedron: Asymmetry *17 (2006) 1017*



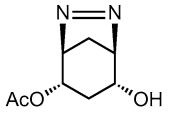
$C_8H_{12}N_6O_3$

(1*R*,2*R*,4*S*,5*S*)-2,4-Diazido-5-hydroxycyclohexyl acetate

Ee ⩾99% (chiral HPLC)
$[\alpha]_D^{22} = +22.0$ (*c* 0.6, $CHCl_3$)
Source of chirality: enzymatic desymmetrization
Absolute configuration: 1*R*,2*R*,4*S*,5*S*

Robert Chênevert* and Frédéric Jacques

Tetrahedron: Asymmetry *17 (2006) 1017*



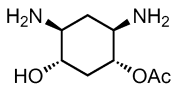
$C_8H_{12}N_2O_3$

(1*S*,2*S*,4*R*,5*R*)-4-Hydroxy-6,7-diazabicyclo[3.2.1]oct-6-en-2-yl acetate

Ee = 92% (chiral HPLC)
$[\alpha]_D^{22} = -63.3$ (*c* 1.90, $CHCl_3$)
Source of chirality: enzymatic desymmetrization
Absolute configuration: 1*S*,2*S*,4*R*,5*R*

Robert Chênevert* and Frédéric Jacques

Tetrahedron: Asymmetry *17 (2006) 1017*



$C_8H_{16}N_2O_3$

(1*R*,2*R*,4*S*,5*S*)-2,4-Diamino-5-hydroxycyclohexyl acetate

Ee ⩾99%
$[\alpha]_D^{22} = -10.8$ (*c* 0.6, MeOH)
Source of chirality: enzymatic desymmetrization
Absolute configuration: 1*R*,2*R*,4*S*,5*S*