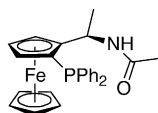


Stereochemistry abstracts

Neil W. Boaz,* James A. Ponasik, Jr., Shannon E. Large
and Sheryl D. Debenham

Tetrahedron: Asymmetry 15 (2004) 2151



$C_{26}H_{26}FeNOP$

(*R*)-1-[(*S*)-2-Diphenylphosphino]ferrocenylethyl acetamide

Ee = >99%

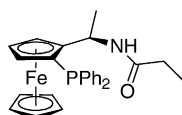
$[\alpha]_D^{23} = -312$ (c 1.00, methanol)

Source of chirality: asymmetric synthesis

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

Neil W. Boaz,* James A. Ponasik, Jr., Shannon E. Large
and Sheryl D. Debenham

Tetrahedron: Asymmetry 15 (2004) 2151



$C_{27}H_{28}FeNOP$

(*R*)-1-[(*S*)-2-Diphenylphosphino]ferrocenylethyl propionamide

Ee = >99%

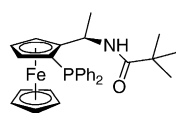
$[\alpha]_D^{23} = -308$ (c 1.05, methanol)

Source of chirality: asymmetric synthesis

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

Neil W. Boaz,* James A. Ponasik, Jr., Shannon E. Large
and Sheryl D. Debenham

Tetrahedron: Asymmetry 15 (2004) 2151



$C_{29}H_{32}FeNOP$

(*R*)-1-[(*S*)-2-Diphenylphosphino]ferrocenylethyl *tert*-butylacetamide

Ee = >99%

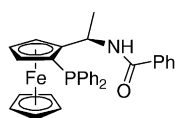
$[\alpha]_D^{24} = -282$ (c 0.53, methanol)

Source of chirality: asymmetric synthesis

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

Neil W. Boaz,* James A. Ponasik, Jr., Shannon E. Large
and Sheryl D. Debenham

Tetrahedron: Asymmetry 15 (2004) 2151



$C_{31}H_{28}FeNOP$

(*R*)-1-[(*S*)-2-Diphenylphosphino]ferrocenylethyl benzamide

Ee = >99%

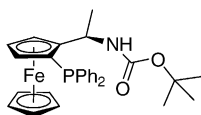
$[\alpha]_D^{25} = -388$ (c 0.54, methanol)

Source of chirality: asymmetric synthesis

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

Neil W. Boaz,* James A. Ponasik, Jr., Shannon E. Large
and Sheryl D. Debenham

Tetrahedron: Asymmetry 15 (2004) 2151



$C_{29}H_{32}FeNO_2P$

(*R*)-1-[(*S*)-2-Diphenylphosphino]ferrocenylethyl *tert*-butyl carbamate

Ee = >99%

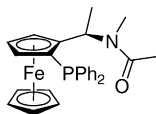
$[\alpha]_D^{25} = -255$ (*c* 0.54, methanol)

Source of chirality: asymmetric synthesis

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

Neil W. Boaz,* James A. Ponasik, Jr., Shannon E. Large
and Sheryl D. Debenham

Tetrahedron: Asymmetry 15 (2004) 2151



$C_{27}H_{28}FeNOP$

N-Methyl (*R*)-1-[(*S*)-2-diphenylphosphino]ferrocenylethyl acetamide

Ee = >99%

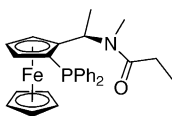
$[\alpha]_D^{25} = -364$ (*c* 0.71, methanol)

Source of chirality: asymmetric synthesis

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

Neil W. Boaz,* James A. Ponasik, Jr., Shannon E. Large
and Sheryl D. Debenham

Tetrahedron: Asymmetry 15 (2004) 2151



$C_{28}H_{30}FeNOP$

N-Methyl (*R*)-1-[(*S*)-2-diphenylphosphino]ferrocenylethyl propionamide

Ee = >99%

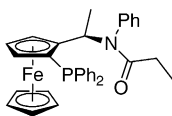
$[\alpha]_D^{25} = -342$ (*c* 0.69, methanol)

Source of chirality: asymmetric synthesis

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

Neil W. Boaz,* James A. Ponasik, Jr., Shannon E. Large
and Sheryl D. Debenham

Tetrahedron: Asymmetry 15 (2004) 2151



$C_{33}H_{32}FeNOP$

N-Phenyl (*R*)-1-[(*S*)-2-diphenylphosphino]ferrocenylethyl propionamide

Ee = >99%

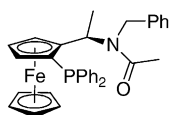
$[\alpha]_D^{25} = -314$ (*c* 0.81, methanol)

Source of chirality: asymmetric synthesis

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

Neil W. Boaz,* James A. Ponasik, Jr., Shannon E. Large
and Sheryl D. Debenham

Tetrahedron: Asymmetry 15 (2004) 2151



$C_{33}H_{32}FeNOP$

N-Benzyl (*R*)-1-[(*S*)-2-diphenylphosphino]ferrocenylethyl acetamide

Ee = >99%

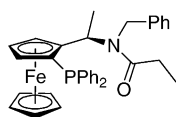
$[\alpha]_D^{25} = -279$ (c 0.54, methanol)

Source of chirality: asymmetric synthesis

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

Neil W. Boaz,* James A. Ponasik, Jr., Shannon E. Large
and Sheryl D. Debenham

Tetrahedron: Asymmetry 15 (2004) 2151



$C_{34}H_{34}FeNOP$

(*R*)-1-[(*S*)-2-Diphenylphosphino]ferrocenylethyl propionamide

Ee = >99%

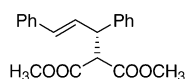
$[\alpha]_D^{25} = -284$ (c 0.60, methanol)

Source of chirality: asymmetric synthesis

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

Neil W. Boaz,* James A. Ponasik, Jr., Shannon E. Large
and Sheryl D. Debenham

Tetrahedron: Asymmetry 15 (2004) 2151



$C_{20}H_{20}O_4$

(*S*)-2-(1,3-Diphenyl-2-propen-1-yl)malonic acid dimethyl ester

Ee = 98.8%

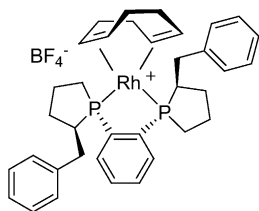
$[\alpha]_D^{23} = -17.6$ (c 1.68, ethanol)

Source of chirality: asymmetric synthesis

Absolute configuration: *S*

Garrett Hoge* and Brian Samas

Tetrahedron: Asymmetry 15 (2004) 2155



$C_{36}H_{44}BF_4P_2Rh$

(-)-1,2-Bis[(1*R*,2*R*)-2-benzylphospholano]benzene(1,5-cyclooctadiene)rhodium(I) tetrafluoroborate

Ee = 100%

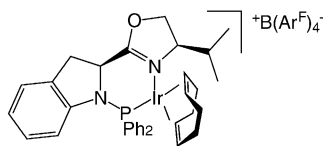
$[\alpha]_D^{24} = -155$ (c 1.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Catherine Blanc, Francine Agbossou-Niedercorn* and
Guy Nowogrocki

Tetrahedron: Asymmetry 15 (2004) 2159



(*S*)-1-(Diphenyl-phosphino)-2-(*R*)-(3'-isopropyl-4',5'-dihydro-oxazol-2'-yl)-2,3-dihydro-1*H*-indole-(η^4 -1,5-cyclooctadiene)iridium(I)tetrakis[3,5-bis(trifluoromethyl)phenyl]borate

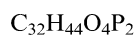
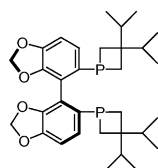
$[\alpha]_D = -6.85$ (*c* 0.19, $CHCl_3$)

Source of chirality: L-indoline carboxylic acid, D-valinol

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

Hideo Shimizu, Takero Ishizaki, Takahiro Fujiwara and Takao Saito*

Tetrahedron: Asymmetry 15 (2004) 2169



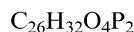
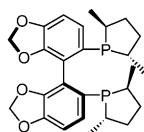
(*S*)-(4,4'-Bi-1,3-benzodioxole)-5,5'-diylbis(3,3-diisopropylphosphetane)

Ee = 98.8%

$[\alpha]_D = -226.5$ (*c* 1.0, $CHCl_3$ 98.8%)

Hideo Shimizu, Takero Ishizaki, Takahiro Fujiwara and Takao Saito*

Tetrahedron: Asymmetry 15 (2004) 2169

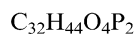
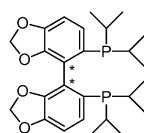


(*aS,S,S*)-(4,4'-Bi-1,3-benzodioxole)-5,5'-diylbis(2,5-di-methylphospholane)

$[\alpha]_D = +255.4$ (*c* 1.0, $CHCl_3$)

Hideo Shimizu, Takero Ishizaki, Takahiro Fujiwara and Takao Saito*

Tetrahedron: Asymmetry 15 (2004) 2169

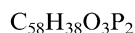
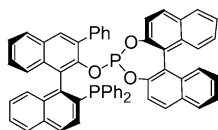


(+)-(4,4'-Bi-1,3-benzodioxole-5,5'-diylbis(diisopropylphosphine)

$[\alpha]_D = +6.5$ (*c* 1.0, $CHCl_3$)

Yongjun Yan, Yongxiang Chi and Xumu Zhang*

Tetrahedron: Asymmetry 15 (2004) 2173



4-[[2'-(Diphenylphosphino)-3-phenyl-[(S)-1,1'-binaphthalen]-2-yl]oxy]-(R)-dinaphtho[2,1-d':1',2'-f][1,3,2]dioxaphosphepin

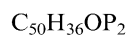
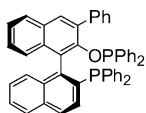
$[\alpha]_D^{20} = -193.6$ (c 0.5, CH_3Cl)

Source of chirality: commercial available
(S)-BINOL and (R)-BINOL

Absolute configuration: S,R

Yongjun Yan, Yongxiang Chi and Xumu Zhang*

Tetrahedron: Asymmetry 15 (2004) 2173



Diphenyl-[2'-(diphenylphosphino)-3-phenyl-[(R)-1,1'-binaphthalen]-2-yl phosphinous acid] ester

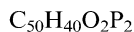
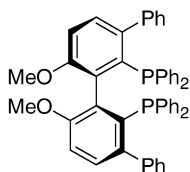
$[\alpha]_D^{20} = +73.0$ (c 0.5, CH_3Cl)

Source of chirality: commercial available
(S)-BINOL

Absolute configuration: S

Shulin Wu, Minsheng He and Xumu Zhang*

Tetrahedron: Asymmetry 15 (2004) 2177



(3,3'-Diphenyl-6,6'-dimethoxybiphenyl-2,2'-diyl)-bis-diphenylphosphine

Ee >99%

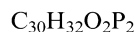
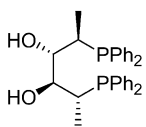
$[\alpha]_D^{20} = +5.5$ (c 1.0, $CHCl_3$)

Source of chirality: chemical resolution

Absolute configuration: S,R

Duan Liu, Wenge Li and Xumu Zhang*

Tetrahedron: Asymmetry 15 (2004) 2181



3,4-Dihydroxy-2,5-bis(diphenylphosphanyl)hexane

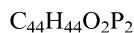
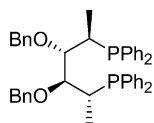
$[\alpha]_D^{20} = -15.2$ (c 0.40, $CHCl_3$)

Source of chirality: commercial available
D-mannitol

Absolute configuration: 2R,3S,4S,5R

Duan Liu, Wenge Li and Xumu Zhang*

Tetrahedron: Asymmetry 15 (2004) 2181



3,4-*O*-Dibenzyl-3,4-dihydroxy-2,5-bis(diphenylphosphanyl)hexane

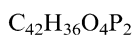
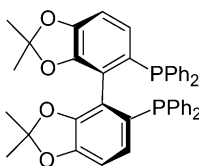
$$[\alpha]_D^{20} = +74.6 \text{ (} c \text{ 0.50, CHCl}_3 \text{)}$$

Source of chirality: commercial available
D-mannitol

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

Yanhui Sun, Xiaobing Wan, Minjie Guo, Donghui Wang,
Xicheng Dong, Yi Pan and Zhaoguo Zhang*

Tetrahedron: Asymmetry 15 (2004) 2185

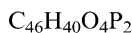
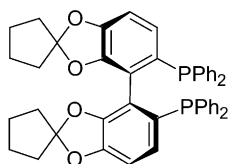


(-)-5,5'-Bis-diphenylphosphanyl-2,2,2',2'-tetramethyl-[4,4']bi-[benzo[1,3]dioxolyl]

$$[\alpha]_D^{20} = -2.1 \text{ (} c \text{ 1.0, benzene)}$$

Yanhui Sun, Xiaobing Wan, Minjie Guo, Donghui Wang,
Xicheng Dong, Yi Pan and Zhaoguo Zhang*

Tetrahedron: Asymmetry 15 (2004) 2185

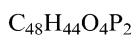
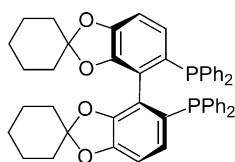


5,5'-Bis-(diphenylphosphanyl)-[4,4']-bi-spiro[benzo[1,3]dioxole-2,1'-cyclopentane]

$$[\alpha]_D^{20} = -7.2 \text{ (} c \text{ 1.0, CHCl}_3 \text{)}$$

Yanhui Sun, Xiaobing Wan, Minjie Guo, Donghui Wang,
Xicheng Dong, Yi Pan and Zhaoguo Zhang*

Tetrahedron: Asymmetry 15 (2004) 2185

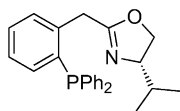


5,5'-Bis-(diphenylphosphanyl)-[4,4']-bi-spiro[benzo[1,3]dioxole-2,1'-cyclohexane]

$$[\alpha]_D^{20} = +56.5 \text{ (} c \text{ 1.0, CHCl}_3 \text{)}$$

Xue-Long Hou,* Da Xuan Dong and Ke Yuan

Tetrahedron: Asymmetry 15 (2004) 2189



C₂₅H₂₆NOP

2-(2'-Diphenylphosphanyl-benzyl)-(S)-4-isopropyl-4,5-dihydro-oxazole

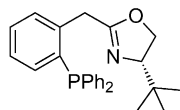
$[\alpha]_D^{20} = -39.7$ (*c* 1.06, CHCl₃)

Source of chirality: (S)-valine

Absolute configuration: (S)

Xue-Long Hou,* Da Xuan Dong and Ke Yuan

Tetrahedron: Asymmetry 15 (2004) 2189



C₂₆H₂₈NOP

(S)-4-tert-Butyl-2-(2'-diphenylphosphanyl-benzyl)-4,5-dihydro-oxazole

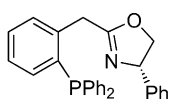
$[\alpha]_D^{20} = -32.7$ (*c* 0.504, CHCl₃)

Source of chirality: (S)-tert-leucine

Absolute configuration: (S)

Xue-Long Hou,* Da Xuan Dong and Ke Yuan

Tetrahedron: Asymmetry 15 (2004) 2189



C₂₈H₂₄NOP

2-(2'-Diphenylphosphanyl-benzyl)-(S)-4-phenyl-4,5-dihydro-oxazole

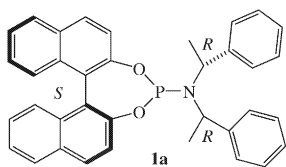
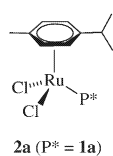
$[\alpha]_D^{20} = -37.9$ (*c* 0.415, CHCl₃)

Source of chirality: (S)-phenylglycine

Absolute configuration: (S)

Dominik Huber and Antonio Mezzetti*

Tetrahedron: Asymmetry 15 (2004) 2193



C₄₆H₄₄Cl₂NO₂PRu

Dichloro(η⁶-p-cymene)(O,O'-(S)-(1,1'-dinaphthyl-2,2'-diyl)-N,N-bis((R)-1-phenylethyl)phosphoramidite)ruthenium(II)

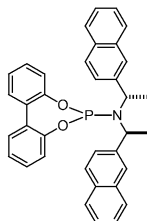
$[\alpha]_D^{23} = +65$ (*c* 0.125, CHCl₃)

Source of chirality: commercial chiral amine and diol

Absolute configuration: (S,1R,1'R)

Alexandre Alexakis,* Damien Polet, Cyril Benhaim and Stéphane Rosset

Tetrahedron: Asymmetry 15 (2004) 2199



$C_{36}H_{30}NO_2P$

(5,7-Dioxa-6-phospha-dibenzo[a,c]cyclohepten-6-yl)-bis-(S)-(1-naphthalen-2-yl-ethyl)-amine

Ee >99%

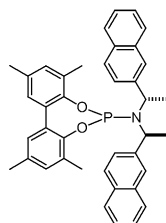
$[\alpha]_D^{20} = -404.9$ (c 1.12, $CHCl_3$)

Source of chirality: (S)-1-Naphthalen-2-yl-ethylamine

Absolute configuration: (S,S)

Alexandre Alexakis,* Damien Polet, Cyril Benhaim and Stéphane Rosset

Tetrahedron: Asymmetry 15 (2004) 2199



$C_{40}H_{38}NO_2P$

Bis-(S)-(1-naphthalen-2-yl-ethyl)-(2,4,8,10-tetramethyl-5,7-dioxa-6-phospha-dibenzo[a,c]cyclohepten-6-yl)-amine

Ee >99%

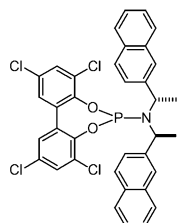
$[\alpha]_D^{20} = -435.0$ (c 1.0, $CHCl_3$)

Source of chirality: (S)-1-Naphthalen-2-yl-ethylamine

Absolute configuration: (S,S)

Alexandre Alexakis,* Damien Polet, Cyril Benhaim and Stéphane Rosset

Tetrahedron: Asymmetry 15 (2004) 2199



$C_{36}H_{26}Cl_4NO_2P$

Bis-(S)-(1-naphthalen-2-yl-ethyl)-(2,4,8,10-tetrachloro-5,7-dioxa-6-phospha-dibenzo[a,c]cyclohepten-6-yl)-amine

Ee >99%

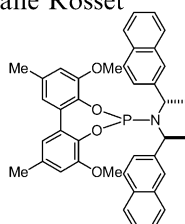
$[\alpha]_D^{20} = -417.0$ (c 1.05, $CHCl_3$)

Source of chirality: (S)-1-Naphthalen-2-yl-ethylamine

Absolute configuration: (S,S)

Alexandre Alexakis,* Damien Polet, Cyril Benhaim and Stéphane Rosset

Tetrahedron: Asymmetry 15 (2004) 2199



$C_{40}H_{38}NO_4P$

(4,8-Dimethoxy-2,10-dimethyl-5,7-dioxa-6-phospha-dibenzo[a,c]cyclohepten-6-yl)-bis-(S)-(1-naphthalen-2-yl-ethyl)-amine

Ee >99%

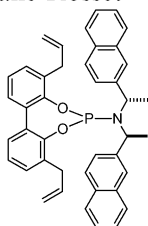
$[\alpha]_D^{20} = -408.7$ (c 1.05, $CHCl_3$)

Source of chirality: (S)-1-Naphthalen-2-yl-ethylamine

Absolute configuration: (S,S)

Alexandre Alexakis,* Damien Polet, Cyril Benhaim and Stéphane Rosset

Tetrahedron: Asymmetry 15 (2004) 2199



$C_{42}H_{38}NO_2P$

(4,8-Diallyl-5,7-dioxa-6-phospha-dibenzo[a,c]cyclohepten-6-yl)-bis-(S)-(1-naphthalen-2-yl-ethyl)-amine

Ee >99%

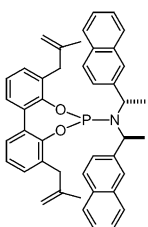
$[\alpha]_D^{20} = -347.0$ (c 1.04, $CHCl_3$)

Source of chirality: (S)-1-Naphthalen-2-yl-ethylamine

Absolute configuration: (S,S)

Alexandre Alexakis,* Damien Polet, Cyril Benhaim and Stéphane Rosset

Tetrahedron: Asymmetry 15 (2004) 2199



$C_{44}H_{42}NO_2P$

[4,8-Bis-(2-methyl-allyl)-5,7-dioxa-6-phospha-dibenzo[a,c]cyclohepten-6-yl]-bis-(S)-(1-naphthalen-2-yl-ethyl)-amine

Ee >99%

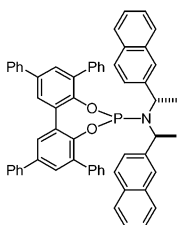
$[\alpha]_D^{20} = -249.1$ (c 1.06, $CHCl_3$)

Source of chirality: (S)-1-Naphthalen-2-yl-ethylamine

Absolute configuration: (S,S)

Alexandre Alexakis,* Damien Polet, Cyril Benhaim and Stéphane Rosset

Tetrahedron: Asymmetry 15 (2004) 2199



$C_{60}H_{46}NO_2P$

Bis-(S)-(1-naphthalen-2-yl-ethyl)-(2,4,8,10-tetraphenyl-5,7-dioxa-6-phospha-dibenzo[a,c]cyclohepten-6-yl)-amine

Ee >99%

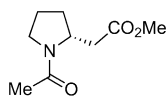
$[\alpha]_D^{20} = -263.0$ (c 1.00, $CHCl_3$)

Source of chirality: (S)-1-Naphthalen-2-yl-ethylamine

Absolute configuration: (S,S)

Yong Jian Zhang, Jung Hwan Park and Sang-gi Lee*

Tetrahedron: Asymmetry 15 (2004) 2209



$C_9H_{15}NO_3$

N-Acetylpyrrolidin-2-yl acetic acid methyl ester

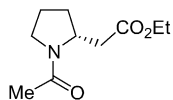
96% ee, determined by Chiral GC

$[\alpha]_D^{25} = +56.7$ (c 0.49, MeOH)

Absolute stereochemistry of major isomer: R

Yong Jian Zhang, Jung Hwan Park and Sang-gi Lee*

Tetrahedron: Asymmetry 15 (2004) 2209



N-Acetylpyrrolidin-2-yl acetic acid ethyl ester

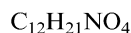
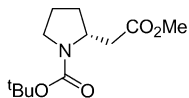
96% ee, determined by Chiral GC

$[\alpha]_{\text{D}}^{25} = +56.5$ (*c* 0.49, MeOH)

Absolute stereochemistry of major isomer: *R*

Yong Jian Zhang, Jung Hwan Park and Sang-gi Lee*

Tetrahedron: Asymmetry 15 (2004) 2209



N-Bocpyrrolidin-2-yl acetic acid methyl ester

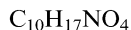
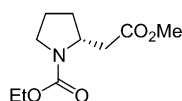
87% ee, determined by Chiral GC

$[\alpha]_{\text{D}}^{25} = +39.0$ (*c* 0.42, MeOH)

Absolute stereochemistry of major isomer: *R*

Yong Jian Zhang, Jung Hwan Park and Sang-gi Lee*

Tetrahedron: Asymmetry 15 (2004) 2209



N-Ethoxycarbonylpyrrolidin-2-yl acetic acid methyl ester

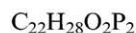
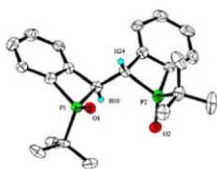
92% ee, determined by Chiral GC

$[\alpha]_{\text{D}}^{25} = +37.0$ (*c* 0.28, MeOH)

Absolute stereochemistry of major isomer: *R*

Tsuneo Imamoto,* Karen V. L. Crépy and Kosuke Katagiri

Tetrahedron: Asymmetry 15 (2004) 2213



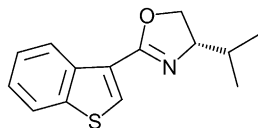
(1*S*,1'*S*,2*S*,2'*S*)-1,1'-Di-*tert*-butyl-2,2'-dibenzophosphetanyl dioxides

$[\alpha]_{\text{D}}^{19} = -12.5$ (*c* 1.00, CHCl₃)

Prepared from optically active (*R*)-*tert*-butylbenzophosphetene oxide

Nicole End, Catherine Stoessel, Ulrich Berens, Pierino di Pietro and Pier Giorgio Cozzi*

Tetrahedron: Asymmetry 15 (2004) 2235



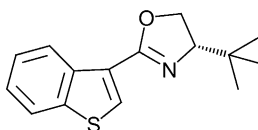
$C_{14}H_{15}NOS$

2-Benzo[b]thiophene-3-yl-4-*iso*-propyl-4,5-dihydrooxazole

$[\alpha]_D = -45.0$ (c 1.09, $CHCl_3$)

Nicole End, Catherine Stoessel, Ulrich Berens, Pierino di Pietro and Pier Giorgio Cozzi*

Tetrahedron: Asymmetry 15 (2004) 2235



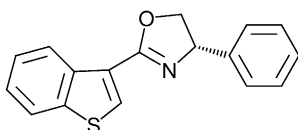
$C_{15}H_{17}NOS$

2-Benzo[b]thiophene-3-yl-4-*tert*-butyl-4,5-dihydrooxazole

$[\alpha]_D = -56.1$ (c 0.9, $CHCl_3$)

Nicole End, Catherine Stoessel, Ulrich Berens, Pierino di Pietro and Pier Giorgio Cozzi*

Tetrahedron: Asymmetry 15 (2004) 2235



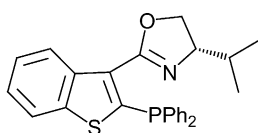
$C_{17}H_{13}NOS$

2-Benzo[b]thiophene-3-yl-4-phenyl-4,5-dihydrooxazole

$[\alpha]_D = -55$ (c 0.67, $CHCl_3$)

Nicole End, Catherine Stoessel, Ulrich Berens, Pierino di Pietro and Pier Giorgio Cozzi*

Tetrahedron: Asymmetry 15 (2004) 2235



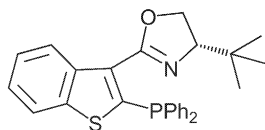
$C_{26}H_{24}NOPS$

2-(2-Diphenylphosphino)-benzo[b]thiophene-3-yl-4-*iso*-propyl-4,5-dihydrooxazole

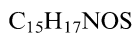
$[\alpha]_D = -74.0$ (c 0.96, $CHCl_3$)

Nicole End, Catherine Stoessel, Ulrich Berens, Pierino di Pietro and Pier Giorgio Cozzi*

Tetrahedron: Asymmetry 15 (2004) 2235



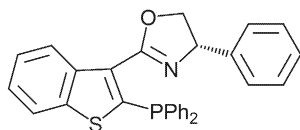
$$[\alpha]_{\text{D}} = -56.1 \text{ (} c \text{ 0.9, CHCl}_3 \text{)}$$



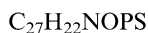
2-(2-Diphenylphosphino)-benzo[b]thiophene-3-yl-4-*tert*-butyl-4,5-dihydrooxazole

Nicole End, Catherine Stoessel, Ulrich Berens, Pierino di Pietro and Pier Giorgio Cozzi*

Tetrahedron: Asymmetry 15 (2004) 2235



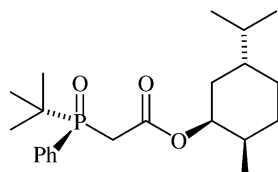
$$[\alpha]_{\text{D}} = -5.4 \text{ (} c \text{ 0.92, CHCl}_3 \text{)}$$



2-(2-Diphenylphosphino)-benzo[b]thiophene-3-yl-4-phenyl-4,5-dihydrooxazole

Xiaohui Cheng, Peter N. Horton, Michael B. Hursthouse and King Kuok (Mimi) Hii*

Tetrahedron: Asymmetry 15 (2004) 2241

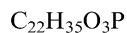


$$\text{Ee} \geq 99\%$$

$$[\alpha]_{\text{D}}^{25} = -80.0 \text{ (} c \text{ 1.0, CH}_3\text{OH)}$$

Source of chirality: (–)-menthol

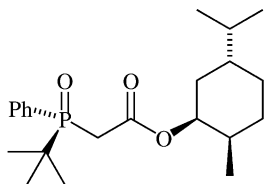
Absolute configuration: R_p



(R_p)-*tert*-Butylphenylphosphinoyl acetic acid menthyl ester

Xiaohui Cheng, Peter N. Horton, Michael B. Hursthouse and King Kuok (Mimi) Hii*

Tetrahedron: Asymmetry 15 (2004) 2241



$$\text{Ee} \geq 99\%$$

$$[\alpha]_{\text{D}}^{25} = +7.8 \text{ (} c \text{ 1.0, CH}_3\text{OH)}$$

Source of chirality: (–)-menthol

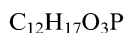
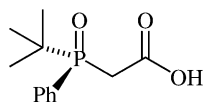
Absolute configuration: S_p



(S_p)-*tert*-Butylphenylphosphinoyl acetic acid menthyl ester

Xiaohui Cheng, Peter N. Horton, Michael B. Hursthouse and King Kuok (Mimi) Hii*

Tetrahedron: Asymmetry 15 (2004) 2241



(*R_p*)-*tert*-Butylphenylphosphinoyl acetic acid

Ee $\geq$ 99%

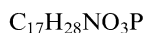
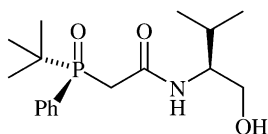
$[\alpha]_{\text{D}}^{25} = +51.9$ (c 1.0, EtOH)

Source of chirality: (–)-menthol

Absolute configuration: *R_p*

Xiaohui Cheng, Peter N. Horton, Michael B. Hursthouse and King Kuok (Mimi) Hii*

Tetrahedron: Asymmetry 15 (2004) 2241



(*R_p*,2*S*)-2-(*tert*-Butylphenylphosphinoyl)-*N*-(1-hydroxymethyl-2-methylpropyl)acetamide

Ee $\geq$ 99%

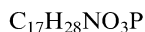
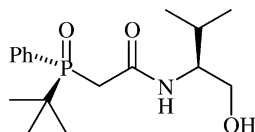
$[\alpha]_{\text{D}}^{25} = -61.8$ (c 1.23, EtOH)

Source of chirality: (*S*)-valinol

Absolute configuration: *R_p*,2*S*

Xiaohui Cheng, Peter N. Horton, Michael B. Hursthouse and King Kuok (Mimi) Hii*

Tetrahedron: Asymmetry 15 (2004) 2241



(*S_p*,2*S*)-2-(*tert*-Butylphenylphosphinoyl)-*N*-(1-hydroxymethyl-2-methylpropyl)acetamide

Ee $\geq$ 99%

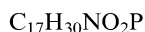
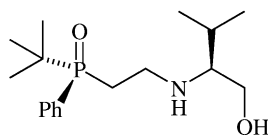
$[\alpha]_{\text{D}}^{25} = +19.1$ (c 1.62, EtOH)

Source of chirality: (*S*)-valinol

Absolute configuration: *S_p*,2*S*

Xiaohui Cheng, Peter N. Horton, Michael B. Hursthouse and King Kuok (Mimi) Hii*

Tetrahedron: Asymmetry 15 (2004) 2241



(*R_p*,2*S*)-2-[2-(*tert*-Butylphenylphosphinoyl)ethylamino]-3-methylbutan-1-ol

Ee $\geq$ 99%

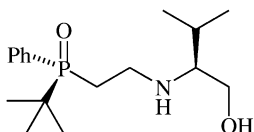
$[\alpha]_{\text{D}}^{25} = -19.2$ (c 1.08, EtOH).

Source of chirality: (*S*)-valinol

Absolute configuration: *R_p*,2*S*

Xiaohui Cheng, Peter N. Horton, Michael B. Hursthouse and King Kuok (Mimi) Hii*

Tetrahedron: Asymmetry 15 (2004) 2241



$C_{17}H_{30}NO_2P$

($S_p,2S$)-2-[2-(*tert*-Butylphenylphosphinoyl)ethylamino]-3-methylbutan-1-ol

Ee $\geq 99\%$

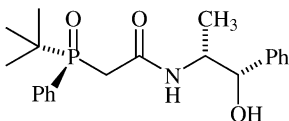
$[\alpha]_D^{25} = +23.9$ (c 1.10, EtOH)

Source of chirality: (*S*)-valinol

Absolute configuration: $S_p,2S$

Xiaohui Cheng, Peter N. Horton, Michael B. Hursthouse and King Kuok (Mimi) Hii*

Tetrahedron: Asymmetry 15 (2004) 2241



$C_{21}H_{28}NO_3P$

($R_p,1S,2R$)-2-(*tert*-butylphenylphosphinoyl)-*N*-(2-hydroxyl-1-methyl-2-phenylethyl)acetamide

Ee $\geq 99\%$

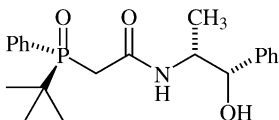
$[\alpha]_D^{25} = -36.0$ (c 1.05, EtOH)

Source of chirality: norephedrine

Absolute configuration: $R_p,1S,2R$

Xiaohui Cheng, Peter N. Horton, Michael B. Hursthouse and King Kuok (Mimi) Hii*

Tetrahedron: Asymmetry 15 (2004) 2241



$C_{21}H_{28}NO_3P$

($S_p,1S,2R$)-2-(*tert*-Butylphenylphosphinoyl)-*N*-(2-hydroxyl-1-methyl-2-phenylethyl)acetamide

Ee $\geq 99\%$

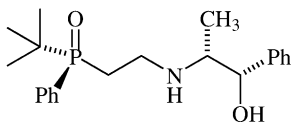
$[\alpha]_D^{25} = +33.5$ (c 1.35, EtOH)

Source of chirality: norephedrine

Absolute configuration: $S_p,1S,2R$

Xiaohui Cheng, Peter N. Horton, Michael B. Hursthouse and King Kuok (Mimi) Hii*

Tetrahedron: Asymmetry 15 (2004) 2241



$C_{21}H_{30}NO_2P$

($R_p,1S,2R$)-2-[2-(*tert*-Butylphenylphosphinoyl)ethylamino]-1-phenylpropan-1-ol

Ee $\geq 99\%$

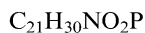
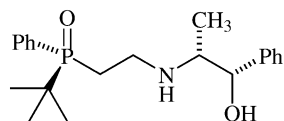
$[\alpha]_D^{25} = -6.5$ (c 1.38, EtOH)

Source of chirality: norephedrine

Absolute configuration: $R_p,1S,2R$

Xiaohui Cheng, Peter N. Horton, Michael B. Hursthouse and King Kuok (Mimi) Hii*

Tetrahedron: Asymmetry 15 (2004) 2241



(*S_p*,1*S*,2*R*)-2-[2-(*tert*-Butylphenylphosphinoyl)ethylamino]-1-phenylpropan-1-ol

Ee $\geq$ 99%

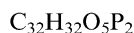
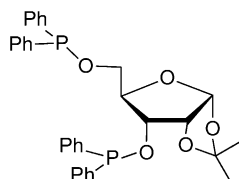
$[\alpha]_D^{25} = +19.0$ (*c* 1.15, EtOH)

Source of chirality: norephedrine

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

Eugeni Guimet, Montserrat Diéguez,* Aurora Ruiz* and Carmen Claver

Tetrahedron: Asymmetry 15 (2004) 2247



3,5-Dideoxy-3,5-bis(diphenylphosphinite)-1,2-*O*-isopropylidene- α -D-ribofuranose

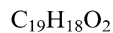
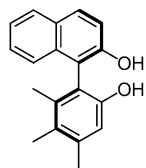
$[\alpha]_D^{20} = +60$ (*c* 2.0, CHCl₃)

Source of chirality: chiral pool

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

Jonathan Madec, Guillaume Michaud, Jean-Pierre Genêt* and Angela Marinetti*

Tetrahedron: Asymmetry 15 (2004) 2253



(*R*)-5,6-Benzo-4'-5'-6'-trimethyl-2,2'-biphenol

Ee > 99%

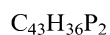
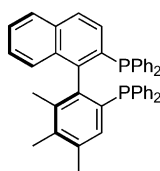
$[\alpha]_D = +24$ (*c* 1, CHCl₃)

Source of chirality: diastereoselective synthesis

Absolute configuration: (*R*)

Jonathan Madec, Guillaume Michaud, Jean-Pierre Genêt* and Angela Marinetti*

Tetrahedron: Asymmetry 15 (2004) 2253



(*R*)-5,6-Benzo-2,2'-bis(diphenylphosphino)-4',5',6'-trimethylbiphenyl

Ee > 99%

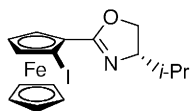
$[\alpha]_D = +43$ (*c* 1, CHCl₃)

Source of chirality: diastereoselective synthesis

Absolute configuration: (*R*)

Ryoichi Kuwano,* Takashi Uemura, Makoto Saitoh and Yoshihiko Ito*

Tetrahedron: Asymmetry 15 (2004) 2263



$C_{16}H_{18}NOFeI$

(S)-1-Iodo-2-[(S)-4,5-dihydro-4-isopropyl-2-oxazolyl]ferrocene

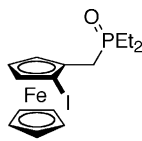
$[\alpha]_D^{20} = -131.0$ (*c* 0.46, $CHCl_3$)

Source of chirality: (S)-valinol

Absolute configuration: S,S

Ryoichi Kuwano,* Takashi Uemura, Makoto Saitoh and Yoshihiko Ito*

Tetrahedron: Asymmetry 15 (2004) 2263



$C_{15}H_{20}OPFeI$

(S)-Diethyl[(2-iodoferrocenyl)methyl]phosphine oxide

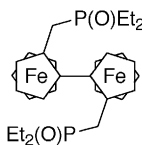
$[\alpha]_D^{20} = +13.0$ (*c* 0.61, $CHCl_3$)

Source of chirality: (S)-valinol

Absolute configuration: S,S

Ryoichi Kuwano,* Takashi Uemura, Makoto Saitoh and Yoshihiko Ito*

Tetrahedron: Asymmetry 15 (2004) 2263



$C_{30}H_{40}O_2P_2Fe_2$

(S,S)-2,2''-Bis[(diethylphosphinyl)methyl]-1,1''-biferrocene

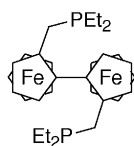
$[\alpha]_D^{20} = -773.7$ (*c* 0.49, $CHCl_3$)

Source of chirality: (S)-valinol

Absolute configuration: S,S

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$C_{30}H_{40}P_2Fe_2$

(S,S)-2,2''-Bis[(diethylphosphino)methyl]-1,1''-biferrocene (EtTRAP-H)

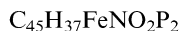
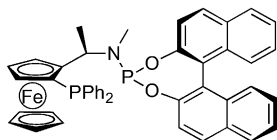
$[\alpha]_D^{24} = -750.2$ (*c* 0.50, $CHCl_3$)

Source of chirality: (S)-valinol

Absolute configuration: S,S

Xian Jia, Xingshu Li,* Wing Sze Lam, Stanton H. L. Kok, Lijin Xu,
Gui Lu, Chi-Hung Yeung* and Albert S. C. Chan*

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(aS)-2-2'-O,O'-(1,1'-Binaphthyl)-(R_C)-N-[(pS)-1-(2-diphenylphosphino) ferrocenyl]ethyl-N-methyl phosphoramidite

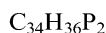
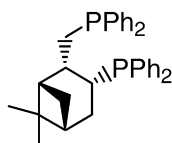
$[\alpha]_D^{20} = -208$ (c 0.48, toluene)

Source of chirality: resolution

Absolute configuration: (aS,R_C,pS)

Andrei Gavryushin, Kurt Polborn and Paul Knochel*

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(1S,2R,3R,5R)-[3-(Diphenylphosphino)-6,6-dimethylbicyclo[3.1.1]hept-2-yl]methyl-phosphine

Ee = >99%

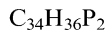
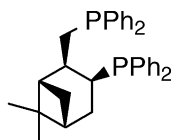
$[\alpha]_D^{20} = +19.8$ (c 1.25, CH₂Cl₂)

Source of chirality: stereoselective synthesis

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

Andrei Gavryushin, Kurt Polborn and Paul Knochel*

Tetrahedron: Asymmetry 15 (2004) 2279



(1S,2S,3S,5R)-[3-(Diphenylphosphino)-6,6-dimethylbicyclo[3.1.1]hept-2-yl]-methyl(diphenyl)-phosphine

Ee = >99%

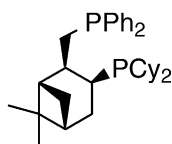
$[\alpha]_D^{20} = +4.0$ (c 0.75, CH₂Cl₂)

Source of chirality: stereoselective synthesis

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

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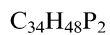
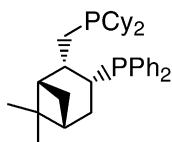
(1S,2S,3R,5R)-Dicyclohexyl{(2-(diphenyl-phosphino)methyl)-6,6-dimethylbicyclo-[3.1.1]hept-3-yl}phosphine

Ee = >99%

$[\alpha]_D^{20} = +4.5$ (c 0.93, CH₂Cl₂)

Source of chirality: stereoselective synthesis

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



(1*S*,2*R*,3*R*,5*R*)-Dicyclohexyl{[3-(diphenylphosphino)-6,6-dimethylbicyclo[3.1.1]hept-2-yl]methyl}phosphine

Ee = >99%

$[\alpha]_D^{20} = +26.5$ (c 1.80, CH₂Cl₂)

Source of chirality: stereoselective synthesis

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