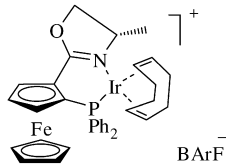
Xinsheng Li,* Qing Li, Xiaohua Wu, Yongguang Gao, Dongcheng Xu and Lichun Kong

Tetrahedron: Asymmetry *18 (2007) 629*



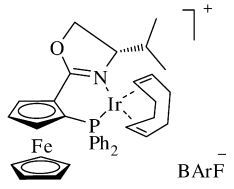
Ee = 100%
$[\alpha]_D^{20} = -336.7$ (*c* 0.28, CH_2Cl_2)
Source of chirality: asymmetric synthesis
Absolute configuration: (*S*,*S*)

$C_{66}H_{48}BF_{24}IrFeNOP$

(η^4-1,5-Cyclooctadiene) [(*S*,*S*)-(4,5-dihydro-4-methyl-2-oxazolyl)-2-diphenylphosphinoferrocene] iridium(I) tetrakis[3,5-bis(trifluoromethyl)phenyl]borate

Xinsheng Li,* Qing Li, Xiaohua Wu, Yongguang Gao, Dongcheng Xu and Lichun Kong

Tetrahedron: Asymmetry *18 (2007) 629*



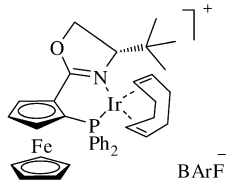
Ee = 100%
$[\alpha]_D^{20} = -471.2$ (*c* 0.29, CH_2Cl_2)
Source of chirality: asymmetric synthesis
Absolute configuration: (*S*,*S*)

$C_{68}H_{52}BF_{24}FeIrNOP$

(η^4-1,5-Cyclooctadiene) [(*S*,*S*)-(4,5-dihydro-4-isopropyl-2-oxazolyl)-2-diphenylphosphinoferrocene] iridium(I) tetrakis[3,5-bis(trifluoromethyl)phenyl]borate

Xinsheng Li,* Qing Li, Xiaohua Wu, Yongguang Gao, Dongcheng Xu and Lichun Kong

Tetrahedron: Asymmetry *18 (2007) 629*



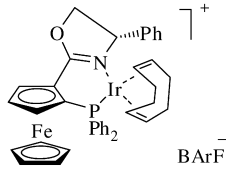
Ee = 100%
$[\alpha]_D^{20} = -641.1$ (*c* 0.18, CH_2Cl_2)
Source of chirality: asymmetric synthesis
Absolute configuration: (*S*,*S*)

$C_{69}H_{54}BF_{24}FeIrNOP$

(η^4-1,5-Cyclooctadiene) [(*S*,*S*)-(4,5-dihydro-4-*tert*-butyl-2-oxazolyl)-2-diphenylphosphinoferrocene] iridium(I) tetrakis[3,5-bis(trifluoromethyl)phenyl]borate

Xinsheng Li,* Qing Li, Xiaohua Wu, Yongguang Gao, Dongcheng Xu and Lichun Kong

Tetrahedron: Asymmetry *18 (2007) 629*



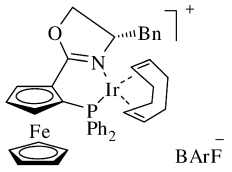
Ee = 100%
$[\alpha]_D^{20} = -578.0$ (*c* 0.20, CH_2Cl_2)
Source of chirality: asymmetric synthesis
Absolute configuration: (*S*,*S*)

$C_{71}H_{50}BF_{24}FeIrNOP$

(η^4-1,5-Cyclooctadiene) [(*S*,*S*)-(4,5-dihydro-4-phenyl-2-oxazolyl)-2-diphenylphosphinoferrocene] iridium(I) tetrakis[3,5-bis(trifluoromethyl)phenyl]borate

Xinsheng Li,* Qing Li, Xiaohua Wu, Yongguang Gao, Dongcheng Xu and Lichun Kong

Tetrahedron: Asymmetry *18 (2007) 629*

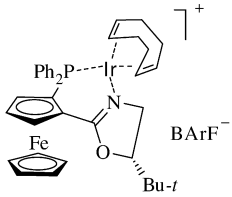


Ee = 100%
$[\alpha]_D^{20} = -397.4$ (*c* 0.20, CH_2Cl_2)
Source of chirality: asymmetric synthesis
Absolute configuration: (*S*,*S*)

$C_{72}H_{52}BF_{24}FeIrNOP$
(η^4-1,5-Cyclooctadiene) [(*S*,*S*)-(4,5-dihydro-4-benzyl-2-oxazolyl)-2-diphenylphosphinoferrocene] iridium(I) tetrakis[3,5-bis(trifluoromethyl)phenyl]borate

Xinsheng Li,* Qing Li, Xiaohua Wu, Yongguang Gao, Dongcheng Xu and Lichun Kong

Tetrahedron: Asymmetry *18 (2007) 629*

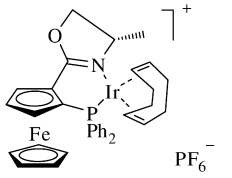


Ee = 100%
$[\alpha]_D^{20} = +217.2$ (*c* 0.14, CH_2Cl_2)
Source of chirality: asymmetric synthesis
Absolute configuration: (*S*,*R*)

$C_{69}H_{54}BF_{24}FeIrNOP$
(η^4-1,5-Cyclooctadiene) [(*S*,*R*)-(4,5-dihydro-4-*tert*-buty-2-oxazolyl)-2-diphenylphosphinoferrocene] iridium(I) tetrakis[3,5-bis(trifluoromethyl)phenyl]borate

Xinsheng Li,* Qing Li, Xiaohua Wu, Yongguang Gao, Dongcheng Xu and Lichun Kong

Tetrahedron: Asymmetry *18 (2007) 629*

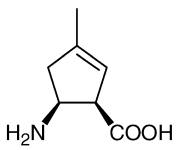


Ee = 100%
$[\alpha]_D^{20} = -160.1$ (*c* 0.1, CH_2Cl_2)
Source of chirality: asymmetric synthesis
Absolute configuration: (*S*,*S*)

$C_{34}H_{36}F_6FeIrNOP_2$
(η^4-1,5-Cyclooctadiene) [(*S*,*S*)-(4,5-dihydro-4-methyl-2-oxazolyl)-2-diphenylphosphinoferrocene] iridium(I) hexafluorophosphate

Zdenko Hameršak,* Marin Roje, Amir Avdagić and Vitomir Šunjić

Tetrahedron: Asymmetry *18 (2007) 635*

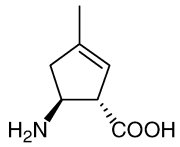


Ee = 96%
$[\alpha]_D^{25} = -115$ (*c* 1, H_2O)
Source of chirality: asymmetric synthesis
Absolute configuration: (1*R*,5*S*)

$C_7H_{11}NO_2$
(1*R*,5*S*)-5-Amino-3-methyl-cyclopent-2-enecarboxylic acid

Zdenko Hameršak,* Marin Roje, Amir Avdagić and Vitomir Šunjić

Tetrahedron: Asymmetry *18 (2007) 635*



$C_7H_{11}NO_2$

(1*S*,5*S*)-5-Amino-3-methyl-cyclopent-2-enecarboxylic acid

Ee = 96%

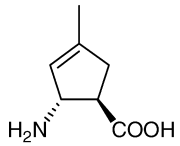
$[\alpha]_D^{25} = +216$ (*c* 0.8, H_2O)

Source of chirality: asymmetric synthesis

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

Zdenko Hameršak,* Marin Roje, Amir Avdagić and Vitomir Šunjić

Tetrahedron: Asymmetry *18 (2007) 635*



$C_7H_{11}NO_2$

(1*R*,2*R*)-2-Amino-4-methyl-cyclopent-3-enecarboxylic acid

Ee = 99%

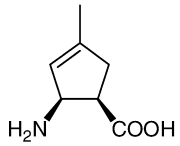
$[\alpha]_D^{25} = -180$ (*c* 0.6, H_2O)

Source of chirality: asymmetric synthesis

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

Zdenko Hameršak,* Marin Roje, Amir Avdagić and Vitomir Šunjić

Tetrahedron: Asymmetry *18 (2007) 635*



$C_7H_{11}NO_2$

(1*R*,2*S*)-2-Amino-4-methyl-cyclopent-3-enecarboxylic acid

Ee = 99%

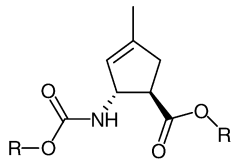
$[\alpha]_D^{25} = +65$ (*c* 0.8, H_2O)

Source of chirality: asymmetric synthesis

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

Zdenko Hameršak,* Marin Roje, Amir Avdagić and Vitomir Šunjić

Tetrahedron: Asymmetry *18 (2007) 635*



$C_{26}H_{27}NO_4$

(1*R*,2*R*)-4-Methyl-2-(3-phenyl-allyloxycarbonylamino)-cyclopent-3-enecarboxylic acid 3-phenyl-allyl ester

Ee = 99%

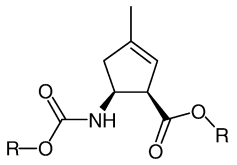
$[\alpha]_D^{25} = -101$ (*c* 1, CH_2Cl_2)

Source of chirality: asymmetric synthesis

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

Zdenko Hameršak,* Marin Roje, Amir Avdagić and Vitomir Šunjić

Tetrahedron: Asymmetry *18 (2007) 635*



Ee = 96%
$[\alpha]_D^{25} = -129$ (*c* 1, CH_2Cl_2)
Source of chirality: asymmetric synthesis
Absolute configuration: (1*R*,5*S*)

$C_{26}H_{27}NO_4$

(1*R*,5*S*)-3-Methyl-5-(3-phenyl-allyloxycarbonylamino)-cyclopent-2-enecarboxylic acid 3-phenyl-allyl ester

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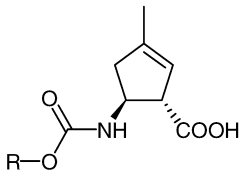
Zdenko Hameršak,* Marin Roje, Amir Avdagić and Vitomir Šunjić

Tetrahedron: Asymmetry *18 (2007) 635*



Ee = 96%
$[\alpha]_D^{25} = +46$ (*c* 1, CH_2Cl_2)
Source of chirality: asymmetric synthesis
Absolute configuration: (1*R*,5*S*)

$C_{17}H_{19}NO_4$

(1*S*,5*S*)-3-Methyl-5-(3-phenyl-allyloxycarbonylamino)-cyclopent-2-enecarboxylic acid

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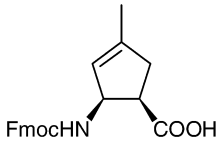
Zdenko Hameršak,* Marin Roje, Amir Avdagić and Vitomir Šunjić

Tetrahedron: Asymmetry *18 (2007) 635*



Ee = 99%
$[\alpha]_D^{25} = +78$ (*c* 1, CH_2Cl_2)
Source of chirality: asymmetric synthesis
Absolute configuration: (1*R*,2*S*)

$C_{22}H_{21}NO_4$

(1*R*,2*S*)-2-(9*H*-Fluoren-9-ylmethoxycarbonylamino)-4-methyl-cyclopent-3-enecarboxylic acid

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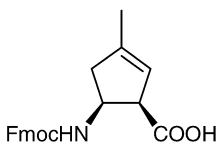
Zdenko Hameršak,* Marin Roje, Amir Avdagić and Vitomir Šunjić

Tetrahedron: Asymmetry *18 (2007) 635*



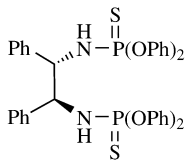
Ee = 99%
$[\alpha]_D^{25} = -91$ (*c* 1, CH_2Cl_2)
Source of chirality: asymmetric synthesis
Absolute configuration: (1*R*,5*S*)

$C_{22}H_{21}NO_4$

(1*R*,5*S*)-5-(9*H*-Fluoren-9-ylmethoxycarbonylamino)-3-methyl-cyclopent-2-enecarboxylic acid

Min Shi* and Jing-Wen Shi

Tetrahedron: Asymmetry *18 (2007) 645*



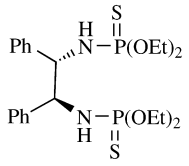
Ee = 100%
$[\alpha]_D^{20} = -47.8$ (*c* 0.86, CH_2Cl_2)
Source of chirality: optical resolution
Absolute configuration: (*S*,*S*)

$C_{38}H_{34}N_2O_4P_2S_2$

[2-(Diphenoxythiophosphorylamino)-1,2-diphenylethyl]thiophosphoramidic acid *O*,*O*′-diphenyl ester

Min Shi* and Jing-Wen Shi

Tetrahedron: Asymmetry *18 (2007) 645*



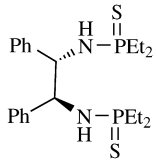
Ee = 100%
$[\alpha]_D^{20} = -18.8$ (*c* 1.16, CH_2Cl_2).
Source of chirality: optical resolution.
Absolute configuration: (*S*,*S*)

$C_{22}H_{34}N_2O_4P_2S_2$

[2-(Diethoxythiophosphorylamino)-1,2-diphenylethyl]thiophosphoramidic acid *O*,*O*′-diethyl ester

Min Shi* and Jing-Wen Shi

Tetrahedron: Asymmetry *18 (2007) 645*



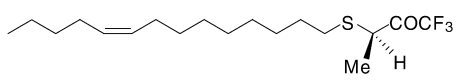
Ee = 100%
$[\alpha]_D^{20} = +76.5$ (*c* 0.87, CH_2Cl_2)
Source of chirality: optical resolution
Absolute configuration: (*S*,*S*)

$C_{22}H_{34}N_2P_2S_2$

Diethylthiophosphoramides

Lourdes Muñoz, M[a] Pilar Bosch and Angel Guerrero*

Tetrahedron: Asymmetry *18 (2007) 651*



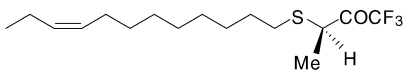
Ee = 90%
$[\alpha]_D^{20} = -132.4$ (*c* 1.36, $CHCl_3$)
Source of chirality: asymmetric alkylation
Absolute configuration: (*R*) (from the known absolute configuration of its precursor)

$C_{18}H_{31}F_3OS$

(*R*)-(−)-(*Z*)-1,1,1-Trifluoro-3-methyl-4-thia-13-octadecen-2-one

Lourdes Muñoz, M[a] Pilar Bosch and Angel Guerrero*

Tetrahedron: Asymmetry *18 (2007) 651*



Ee = 93%
$[\alpha]_D^{20} = -182.5$ (*c* 1.36, $CHCl_3$)
Source of chirality: asymmetric alkylation
Absolute configuration: (*R*) (from the known absolute configuration of its precursor)

$C_{18}H_{31}F_3OS$
(*R*)-(−)-(*Z*)-1,1,1-Trifluoro-3-methyl-4-thia-13-hexadecen-2-one

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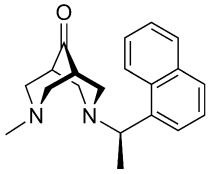
Giordano Lesma,* Carlo Cattenati, Tullio Pilati, Alessandro Sacchetti* and Alessandra Silvani

Tetrahedron: Asymmetry *18 (2007) 659*



$[\alpha]_D^{20} = -30.6$ (*c* 1, $CHCl_3$)
Source of asymmetry: (*R*)-1-naphthalen-1-yl-ethyl-amine
Absolute configuration: (1′*R*,1*R*,5*S*)

$C_{20}H_{24}N_2O$
(1′*R*,1*R*,5*S*)-3-Methyl-7-(1′-naphthalen-1-yl-ethyl)-3,7- diaza-bicyclo[3.3.1]nonan-9-one

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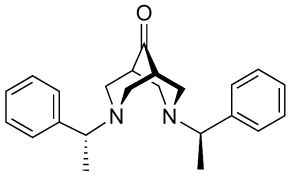
Giordano Lesma,* Carlo Cattenati, Tullio Pilati, Alessandro Sacchetti* and Alessandra Silvani

Tetrahedron: Asymmetry *18 (2007) 659*



$[\alpha]_D^{20} = +4.2$ (*c* 0.5, $CHCl_3$)
Source of asymmetry: (*R*)-1-phenyl-ethylamine
Absolute configuration: (*R*,*R*)

$C_{23}H_{28}N_2O$
3,7-Bis-((*R*)-1′-phenyl-ethyl)-3,7-diaza-bicyclo[3.3.1]nonan-9-one

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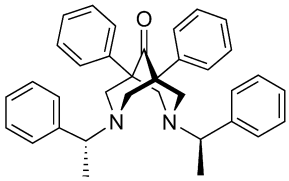
Giordano Lesma,* Carlo Cattenati, Tullio Pilati, Alessandro Sacchetti* and Alessandra Silvani

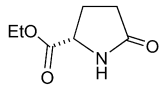
Tetrahedron: Asymmetry *18 (2007) 659*



$[\alpha]_D^{20} = -8.4$ (*c* 1, $CHCl_3$)
Source of asymmetry: (*R*)-1-phenyl-ethylamine
Absolute configuration: (*R*,*R*)

$C_{35}H_{36}N_2O$
1,5-Diphenyl-3,7-bis-((*R*)-1′-phenyl-ethyl)-3,7-diaza-bicyclo[3.3.1]nonan-9-one

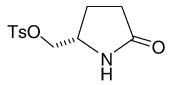
Glynn D. Williams, Charles E. Wade, Guy J. Clarkson and Martin Wills* | *Tetrahedron:* Asymmetry *18 (2007) 664*



$C_7H_{11}NO_3$
Ethyl-(2*S*)-5-oxopyrrolidine

Ee = 100%
$[\alpha]_D^{22} = -6.8$ (*c* 0.03, EtOH)
Source of chirality: enantiomerically pure starting material
Absolute configuration: (2*S*)

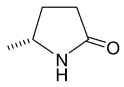
Glynn D. Williams, Charles E. Wade, Guy J. Clarkson and Martin Wills* | *Tetrahedron:* Asymmetry *18 (2007) 664*



$C_{12}H_{15}NO_4S$
[(2*S*)-5-Oxopyrrolidin-2-yl]methyl-4-methylbenzenesulfonate **4**

Ee = 100%
$[\alpha]_D^{22} = -6.5$ (*c* 0.013, EtOH)
Source of chirality: enantiomerically pure starting material
Absolute configuration: (2*S*)

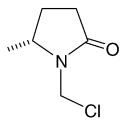
Glynn D. Williams, Charles E. Wade, Guy J. Clarkson and Martin Wills* | *Tetrahedron:* Asymmetry *18 (2007) 664*



C_5H_9NO
(5*R*)-5-Methylpyrrolidin-2-one **5**

Ee = 100%
$[\alpha]_D^{22} = +15.8$ (*c* 0.023, EtOH)
Source of chirality: enantiomerically pure starting material
Absolute configuration: (5*R*)

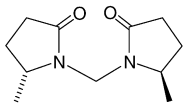
Glynn D. Williams, Charles E. Wade, Guy J. Clarkson and Martin Wills* | *Tetrahedron:* Asymmetry *18 (2007) 664*



$C_6H_{10}NOCl$
(5*R*)-Methyl-1-(chloromethyl)-2-pyrrolidinone

Ee = 100%
$[\alpha]_D^{22} = +106.9$ (*c* 0.021, $CHCl_3$)
Source of chirality: enantiomerically pure starting material
Absolute configuration: (5*R*)

Glynn D. Williams, Charles E. Wade, Guy J. Clarkson and Martin Wills* | *Tetrahedron:* Asymmetry *18 (2007) 664*



$C_{11}H_{18}N_2O_2$

(5*R*)-5-Methyl-1-{[(2*R*)-2-methyl-5-oxopyrrolidin-1-yl]methylpyrrolidin-2-one

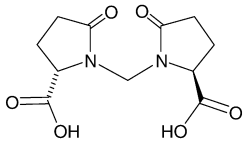
Ee = 100%

$[\alpha]_D^{22} = +207.7$ (*c* 0.48, $CHCl_3$)

Source of chirality: enantiomerically pure starting material

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

Glynn D. Williams, Charles E. Wade, Guy J. Clarkson and Martin Wills* | *Tetrahedron:* Asymmetry *18 (2007) 664*



$C_{11}H_{14}N_2O_6$

L-(+)-1,1′-Methylenebis[5-oxo-2-pyrrolidinecarboxylic acid]

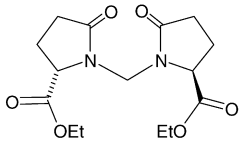
Ee = 100%

$[\alpha]_D^{22} = +104.0$ (*c* 0.022, H_2O)

Source of chirality: enantiomerically pure starting material

Absolute configuration: (2*S*,2′*S*)

Glynn D. Williams, Charles E. Wade, Guy J. Clarkson and Martin Wills* | *Tetrahedron:* Asymmetry *18 (2007) 664*



$C_{15}H_{22}N_2O_6$

L-(+)-1,1′-Methylenebis[5-oxo-2-pyrrolidinecarboxylic acid ethyl ester]

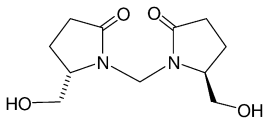
Ee = 100%

$[\alpha]_D^{22} = +52.7$ (*c* 0.0204, EtOH)

Source of chirality: enantiomerically pure starting material

Absolute configuration: (2*S*,2′*S*)

Glynn D. Williams, Charles E. Wade, Guy J. Clarkson and Martin Wills* | *Tetrahedron:* Asymmetry *18 (2007) 664*



$C_{11}H_{18}N_2O_4$

L-(+)-1,1′-Methylenebis[5-hydroxymethyl-2-pyrrolidinone]

Ee = 100%

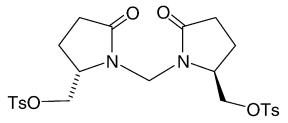
$[\alpha]_D^{22} = +91.3$ (*c* 0.0145, H_2O)

Source of chirality: enantiomerically pure starting material

Absolute configuration: (2*S*,2′*S*)

Glynn D. Williams, Charles E. Wade, Guy J. Clarkson and Martin Wills*

Tetrahedron: Asymmetry *18 (2007) 664*



$C_{25}H_{30}N_2O_4S_2$

L-(+)-1,1′-Methylenebis[toluene-4-sulfonic acid (*S*)-5-oxo-pyrrolidin-2-ylmethyl ester]

Ee = 100%

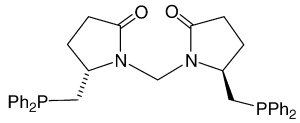
$[\alpha]_D^{22} = +52.6$ (*c* 0.0204, EtOH)

Source of chirality: enantiomerically pure starting material

Absolute configuration: (2*S*,2′*S*)

Glynn D. Williams, Charles E. Wade, Guy J. Clarkson and Martin Wills*

Tetrahedron: Asymmetry *18 (2007) 664*



$C_{35}H_{36}N_2O_2P_2$

Methylenebis[5-diphenylphosphino-2-pyrrolidinone]

Ee = 100%

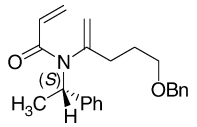
$[\alpha]_D^{22} = +83.6$ (*c* 0.031, EtOH)

Source of chirality: enantiomerically pure starting material

Absolute configuration: (2*S*,2′*S*)

Thomas Hjelmgaard, Daniel Gardette,* David Tanner and David J. Aitken

Tetrahedron: Asymmetry *18 (2007) 671*



$C_{23}H_{27}NO_2$

N-(4-(Benzyloxy-1-methylene-butyl)-*N*-(1-(*S*)-phenyl-ethyl)-acrylamide

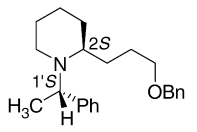
$[\alpha]_D^{22} = -82.8$ (*c* 1.50, MeOH)

Source of chirality: chiral starting material

Absolute configuration: (*S*)

Thomas Hjelmgaard, Daniel Gardette,* David Tanner and David J. Aitken

Tetrahedron: Asymmetry *18 (2007) 671*



$C_{23}H_{31}NO$

(*S*)-2-(3-Benzyloxy-propyl)-1-(1′-(*S*)-phenyl-ethyl)-piperidine

Ee >97% (vide infra)

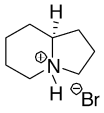
$[\alpha]_D^{22} = -68.4$ (*c* 1.00, MeOH)

Source of chirality: asymmetric synthesis (reductive photocyclization of chiral dienamide)

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

Thomas Hjelmgaard, Daniel Gardette,* David Tanner and David J. Aitken

Tetrahedron: Asymmetry *18 (2007) 671*



$C_8H_{16}BrN$

(+)-Coniceine hydrobromide

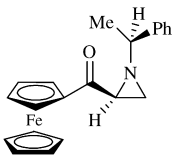
Ee >97% (determined by NMR-experiments)

$[\alpha]_D^{22} = +5.5$ (*c* 0.88, EtOH)

Source of chirality: asymmetric synthesis (reductive photocyclization of chiral dienamide)

Alper Isleyen and Özdemir Dogan*

Tetrahedron: Asymmetry *18 (2007) 679*



$C_{21}H_{21}FeNO$

Ferrocenyl((*S*)-1-((*S*)-1-phenylethyl)aziridin-2-yl)methanone

Ee = 99%

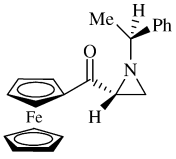
$[\alpha]_D^{25} = -90.0$ (*c* 1.00, $CHCl_3$)

Source of chirality: L-α-methylbenzylamine 99% ee

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

Alper Isleyen and Özdemir Dogan*

Tetrahedron: Asymmetry *18 (2007) 679*



$C_{21}H_{21}FeNO$

Ferrocenyl((*R*)-1-((*S*)-1-phenylethyl)aziridin-2-yl)methanone

Ee = 99%

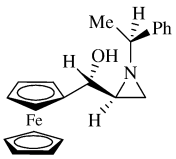
$[\alpha]_D^{25} = -220.0$ (*c* 1.00, $CHCl_3$)

Source of chirality: L-α-methylbenzylamine 99% ee

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

Alper Isleyen and Özdemir Dogan*

Tetrahedron: Asymmetry *18 (2007) 679*



$C_{21}H_{23}FeNO$

(*R*)-Ferrocenyl((*S*)-1-((*S*)-1-phenylethyl)aziridin-2-yl)methanol

Ee = 99%

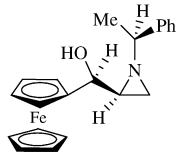
$[\alpha]_D^{25} = -45.2$ (*c* 1.00, $CHCl_3$)

Source of chirality: L-α-methylbenzylamine 99% ee

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

Alper Isleyen and Özdemir Dogan*

Tetrahedron: Asymmetry *18 (2007) 679*



$C_{21}H_{23}FeNO$

(*S*)-Ferrocenyl((*S*)-1-((*S*)-1-phenylethyl)aziridin-2-yl)methanol

Ee = 99%

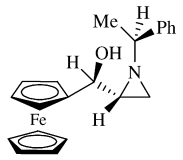
$[\alpha]_D^{25} = -46.3$ (*c* 1.00, $CHCl_3$)

Source of chirality: L-α-methylbenzylamine 99% ee

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

Alper Isleyen and Özdemir Dogan*

Tetrahedron: Asymmetry *18 (2007) 679*



$C_{21}H_{23}FeNO$

(*S*)-Ferrocenyl((*R*)-1-((*S*)-1-phenylethyl)aziridin-2-yl)methanol

Ee = 99%

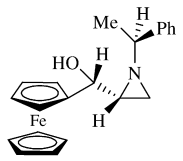
$[\alpha]_D^{25} = -20.9$ (*c* 1.00, $CHCl_3$)

Source of chirality: L-α-methylbenzylamine 99% ee

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

Alper Isleyen and Özdemir Dogan*

Tetrahedron: Asymmetry *18 (2007) 679*



$C_{21}H_{23}FeNO$

(*R*)-Ferrocenyl((*R*)-1-((*S*)-1-phenylethyl)aziridin-2-yl)methanol

Ee = 99%

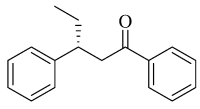
$[\alpha]_D^{25} = -3.0$ (*c* 1.00, $CHCl_3$)

Source of chirality: L-α-methylbenzylamine 99% ee

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

Alper Isleyen and Özdemir Dogan*

Tetrahedron: Asymmetry *18 (2007) 679*



$C_{17}H_{18}O$

(*R*)-1,3-Diphenylpentan-1-one

Ee = 80%

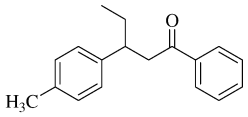
$[\alpha]_D^{25} = -4.3$ (*c* 1.35, EtOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*)

Alper Isleyen and Özdemir Dogan*

Tetrahedron: Asymmetry *18 (2007) 679*



$C_{18}H_{20}O$

(−)-1-Phenyl-3-*p*-tolylpentan-1-one

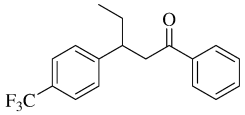
Ee = 72%

$[\alpha]_D^{25} = -9.4$ (*c* 2.22, EtOH)

Source of chirality: asymmetric synthesis

Alper Isleyen and Özdemir Dogan*

Tetrahedron: Asymmetry *18 (2007) 679*



$C_{18}H_{17}F_3O$

(+)-3-(4-(Trifluoromethyl)phenyl)-1-phenylpentan-1-one

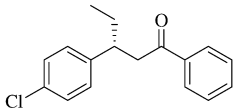
Ee = 70%

$[\alpha]_D^{25} = +4.2$ (*c* 1.92, EtOH)

Source of chirality: asymmetric synthesis

Alper Isleyen and Özdemir Dogan*

Tetrahedron: Asymmetry *18 (2007) 679*



$C_{17}H_{17}ClO$

(*R*)-3-(4-Chlorophenyl)-1-phenylpentan-1-one

Ee = 70%

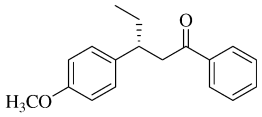
$[\alpha]_D^{25} = -1.8$ (*c* 1.97, EtOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*)

Alper Isleyen and Özdemir Dogan*

Tetrahedron: Asymmetry *18 (2007) 679*



$C_{18}H_{20}O_2$

(*R*)-3-(4-Methoxyphenyl)-1-phenylpentan-1-one

Ee = 76%

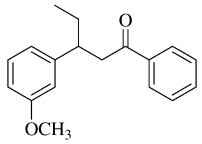
$[\alpha]_D^{25} = -12.4$ (*c* 1.49, EtOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*)

Alper Isleyen and Özdemir Dogan*

Tetrahedron: Asymmetry *18 (2007) 679*



$C_{18}H_{20}O_2$

(−)-3-(3-Methoxyphenyl)-1-phenylpentan-1-one

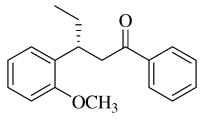
Ee = 80%

$[\alpha]_D^{25} = -3.4$ (*c* 2.06, EtOH)

Source of chirality: asymmetric synthesis

Alper Isleyen and Özdemir Dogan*

Tetrahedron: Asymmetry *18 (2007) 679*



$C_{18}H_{20}O_2$

(*R*)-3-(2-Methoxyphenyl)-1-phenylpentan-1-one

Ee = 66%

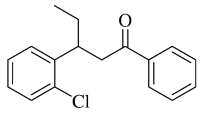
$[\alpha]_D^{25} = -5.7$ (*c* 1.80, EtOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*)

Alper Isleyen and Özdemir Dogan*

Tetrahedron: Asymmetry *18 (2007) 679*



$C_{17}H_{17}ClO$

(+)-3-(2-Chlorophenyl)-1-phenylpentan-1-one

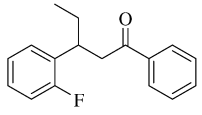
Ee = 50%

$[\alpha]_D^{25} = +16.4$ (*c* 1.30, EtOH)

Source of chirality: asymmetric synthesis

Alper Isleyen and Özdemir Dogan*

Tetrahedron: Asymmetry *18 (2007) 679*



$C_{17}H_{17}FO$

(+)-3-(2-Fluorophenyl)-1-phenylpentan-1-one

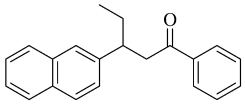
Ee = 76%

$[\alpha]_D^{25} = +10.0$ (*c* 2.19, EtOH)

Source of chirality: asymmetric synthesis

Alper Isleyen and Özdemir Dogan*

Tetrahedron: Asymmetry *18 (2007) 679*



$C_{21}H_{20}O$

(+)-3-(Naphthalen-2-yl)-1-phenylpentan-1-one

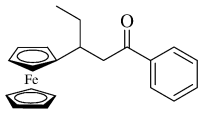
Ee = 78%

$[\alpha]_D^{25} = +1.1$ (*c* 1.99, EtOH)

Source of chirality: asymmetric synthesis

Alper Isleyen and Özdemir Dogan*

Tetrahedron: Asymmetry *18 (2007) 679*



$C_{21}H_{22}FeO$

(+)-3-Ferrocenyl-1-phenylpentan-1-one

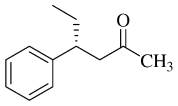
Ee = 56%

$[\alpha]_D^{25} = +42.9$ (*c* 0.84, EtOH)

Source of chirality: asymmetric synthesis

Alper Isleyen and Özdemir Dogan*

Tetrahedron: Asymmetry *18 (2007) 679*



$C_{14}H_{22}O$

(*R*)-4-Phenylhexan-2-one

Ee = 22%

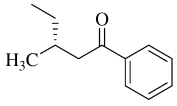
$[\alpha]_D^{25} = -3.5$ (*c* 1.61, EtOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*)

Alper Isleyen and Özdemir Dogan*

Tetrahedron: Asymmetry *18 (2007) 679*



$C_{14}H_{22}O$

(*R*)-3-Methyl-1-phenylpentan-1-one

Ee = 60%

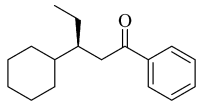
$[\alpha]_D^{25} = -10.4$ (*c* 1.87, Et_2O)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*)

Alper Isleyen and Özdemir Dogan*

Tetrahedron: Asymmetry *18 (2007) 679*



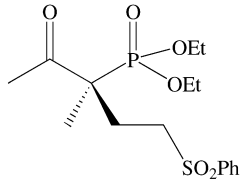
$C_{17}H_{24}O$

(*S*)-3-Cyclohexyl-1-phenylpentan-1-one

Ee = 70%
$[\alpha]_D^{25} = +0.7$ (*c* 1.54, EtOH)
Source of chirality: asymmetric synthesis
Absolute configuration: (*S*)

Sandrine Delarue-Cochin,* Jian-Jung Pan, Aurélie Dauteloup, Frédéric Hendra, Roger Gagali Angoh, Delphine Joseph, Philip J. Stephens and Christian Cavé

Tetrahedron: Asymmetry *18 (2007) 685*



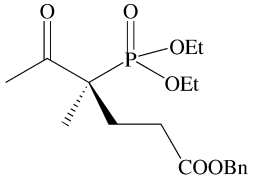
$C_{16}H_{25}O_6PS$

Diethyl (*S*)-[2-(2-benzenesulfonylethyl)-3-oxo-but-2-yl]-phosphonate

Ee = 94%
$[\alpha]_D^{20} = -26$ (*c* 2.0, CH_2Cl_2)
Source of chirality: asymmetric synthesis
Absolute configuration: (*S*)

Sandrine Delarue-Cochin,* Jian-Jung Pan, Aurélie Dauteloup, Frédéric Hendra, Roger Gagali Angoh, Delphine Joseph, Philip J. Stephens and Christian Cavé

Tetrahedron: Asymmetry *18 (2007) 685*



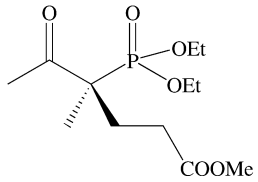
$C_{18}H_{28}O_6P$

Diethyl (*S*)-[2-(2-benzyloxycarbonylethyl)-3-oxo-but-2-yl]-phosphonate

Ee = 88%
$[\alpha]_D^{20} = +11$ (*c* 2.0, CH_2Cl_2)
Source of chirality: asymmetric synthesis
Absolute configuration: (*S*)

Sandrine Delarue-Cochin,* Jian-Jung Pan, Aurélie Dauteloup, Frédéric Hendra, Roger Gagali Angoh, Delphine Joseph, Philip J. Stephens and Christian Cavé

Tetrahedron: Asymmetry *18 (2007) 685*



$C_{12}H_{23}O_6P$

Diethyl (*S*)-[2-(2-methoxycarbonylethyl)-3-oxo-but-2-yl]-phosphonate

Ee = 88%
$[\alpha]_D^{20} = -10$ (*c* 1.9, CH_2Cl_2)
Source of chirality: asymmetric synthesis
Absolute configuration: (*S*)

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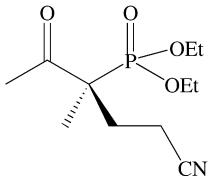
Tetrahedron: Asymmetry *18 (2007) 685*



$C_{11}H_{20}NO_4P$

Diethyl (*S*)-[2-(2-cyanoethyl)-3-oxo-but-2-yl]-phosphonate

Ee = 85%

$[\alpha]_D^{20} = -45$ (*c* 1.5, CH_2Cl_2)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

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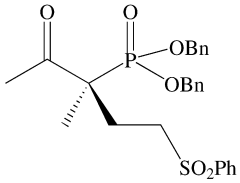
Tetrahedron: Asymmetry *18 (2007) 685*



$C_{26}H_{29}O_6PS$

Dibenzyl (*S*)-[2-(2-benzenesulfonylethyl)-3-oxo-but-2-yl]-phosphonate

Ee = 70%

$[\alpha]_D^{20} = +8$ (*c* 1.0, CH_2Cl_2)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)