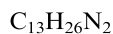
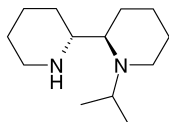


Stereochemistry abstracts

Marju Laars, Kadri Kriis, Tiiu Kailas, Aleksander-Mati Müürisepp, Tõnis Pehk, Tõnis Kanger* and Margus Lopp

Tetrahedron: Asymmetry 19 (2008) 641



(2*R*,2'*R*)-*N*-*i*Pr-2,2'-Bipiperidine

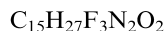
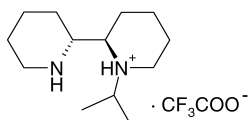
$$[\alpha]_{\text{D}}^{18} = +45 \text{ (} c \text{ 7.0, MeOH)}$$

Source of chirality: resolution with L-tartaric acid

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

Marju Laars, Kadri Kriis, Tiiu Kailas, Aleksander-Mati Müürisepp, Tõnis Pehk, Tõnis Kanger* and Margus Lopp

Tetrahedron: Asymmetry 19 (2008) 641



(2*R*,2'*R*)-*N*-*i*Pr-2,2'-Bipiperidine trifluoroacetic acid salt

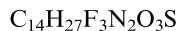
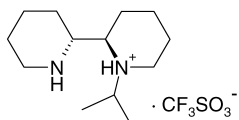
$$[\alpha]_{\text{D}}^{20} = -4.2 \text{ (} c \text{ 5.6, MeOH)}$$

Source of chirality: resolution with L-tartaric acid

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

Marju Laars, Kadri Kriis, Tiiu Kailas, Aleksander-Mati Müürisepp, Tõnis Pehk, Tõnis Kanger* and Margus Lopp

Tetrahedron: Asymmetry 19 (2008) 641



(2*R*,2'*R*)-*N*-*i*Pr-2,2'-Bipiperidine trifluoromethanesulfonic acid salt

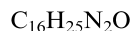
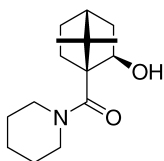
$$[\alpha]_{\text{D}}^{23} = -3.6 \text{ (} c \text{ 5.2, MeOH)}$$

Source of chirality: resolution with L-tartaric acid

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

Tomás de las Casas Engel, Beatriz Lora Maroto, Antonio García Martínez and Santiago de la Moya Cerero*

Tetrahedron: Asymmetry 19 (2008) 646



(1*S*)-10-Oxo-10-piperidin-1-ylisoborneol

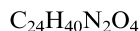
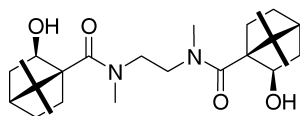
Source of chirality: (1*S*)-ketopininc acid

$$[\alpha]_{\text{D}}^{20} = -0.7 \text{ (} c \text{ 1.34, CHCl}_3)$$

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

Tomás de las Casas Engel, Beatriz Lora Maroto,
Antonio García Martínez and Santiago de la Moya Cerero*

Tetrahedron: Asymmetry 19 (2008) 646



N,N'-Bis{[(1*S*,2*R*)-7,7-dimethyl-2-hydroxynorborn-1-yl]carbonyl}-*N,N'*-dimethylethane-1,2-diamine

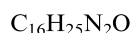
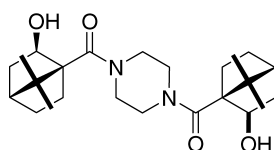
Source of chirality: (1*S*)-ketopinic acid

$[\alpha]_D^{20} = -73.6$ (*c* 0.28, $CHCl_3$)

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

Tomás de las Casas Engel, Beatriz Lora Maroto,
Antonio García Martínez and Santiago de la Moya Cerero*

Tetrahedron: Asymmetry 19 (2008) 646



N,N'-Bis{[(1*S*,2*R*)-7,7-dimethyl-2-hydroxynorborn-1-yl]carbonyl}piperazine

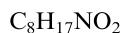
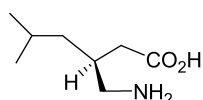
Source of chirality: (1*S*)-ketopinic acid

$[\alpha]_D^{20} = -50.9$ (*c* 0.17, $CHCl_3$)

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

Sandra Izquierdo, Jordi Aguilera, Helmut H. Buschmann,
Mónica García, Antoni Torrens* and Rosa M. Ortuño*

Tetrahedron: Asymmetry 19 (2008) 651



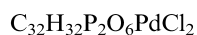
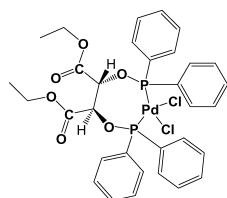
(3*S*)-3-Aminomethyl-5-methylhexanoic acid

$[\alpha]_D = +10.0$ (*c* 0.5, H_2O)

Source of chirality: D-mannitol and stereoselective synthesis

Rakesh K. Sharma, Munirathnam Nethaji and Ashoka G. Samuelson*

Tetrahedron: Asymmetry 19 (2008) 655



[(2*R*,3*R*)-Diethyl 2,3-bis(diphenylphosphinoxy) succinate $PdCl_2$]

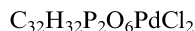
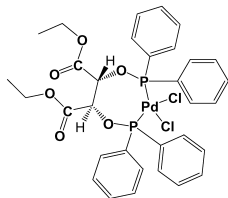
$[\alpha]_D^{25} = +59.2$ (*c* 1.0, $CHCl_3$)

Source of chirality: L-tartaric acid

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

Rakesh K. Sharma, Munirathnam Nethaji and Ashoka G. Samuelson*

Tetrahedron: Asymmetry 19 (2008) 655



[(2*S*,3*S*)-Diethyl 2,3-bis(diphenylphosphinoxy) succinate PdCl₂]

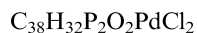
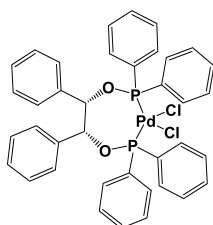
$[\alpha]_D^{25} = -52.9$ (*c* 1.0, CH₂Cl₂)

Source of chirality: D-tartaric acid

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

Rakesh K. Sharma, Munirathnam Nethaji and Ashoka G. Samuelson*

Tetrahedron: Asymmetry 19 (2008) 655



[(1*R*,2*R*)-1,2-Bis(diphenylphosphinoxy)-1,2-diphenylethane PdCl₂]

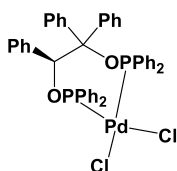
$[\alpha]_D^{25} = -9.9$ (*c* 2, CHCl₃)

Source of chirality: (*R,R*)-hydrobenzoin

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

Rakesh K. Sharma, Munirathnam Nethaji and Ashoka G. Samuelson*

Tetrahedron: Asymmetry 19 (2008) 655



[(*S*)-1,2-Bis(diphenylphosphinoxy)-1,1,2-triphenylethane PdCl₂]

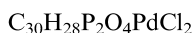
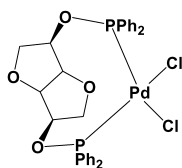
$[\alpha]_D^{25} = +12.8$ (*c* 2, CH₂Cl₂)

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

Absolute configuration: (*S*)

Rakesh K. Sharma, Munirathnam Nethaji and Ashoka G. Samuelson*

Tetrahedron: Asymmetry 19 (2008) 655



[(3*S*,6*S*)-3,6-Bis(diphenylphosphinoxy)-hexahydrofuro[3,2-*b*]furan PdCl₂]

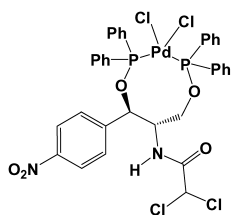
$[\alpha]_D^{25} = +28.2$ (*c* 1, CHCl₃)

Source of chirality: isomannide

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

Rakesh K. Sharma, Munirathnam Nethaji and Ashoka G. Samuelson*

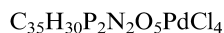
Tetrahedron: Asymmetry 19 (2008) 655



$$[\alpha]_{\text{D}}^{25} = +57.3 \text{ (} c \text{ 1, DMSO)}$$

Source of chirality: chloramphenicol

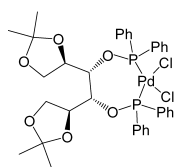
Absolute configuration: (*R,R*)



[*N*-((1*R*,2*R*)-1,3-Bis(benzhydryloxy)-1-(4-nitrophenyl)propan-2-yl)-2,2-dichloroacetamide PdCl₂]

Rakesh K. Sharma, Munirathnam Nethaji and Ashoka G. Samuelson*

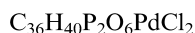
Tetrahedron: Asymmetry 19 (2008) 655



$$[\alpha]_{\text{D}}^{25} = +28.4 \text{ (} c \text{ 0.5, CHCl}_3\text{)}$$

Source of chirality: D-mannitol

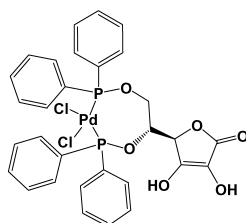
Absolute configuration: (*R,S,R,S*)



[(*R*)-4-((1*S*,2*R*)-2-((*S*)-2,2-Dimethyl-1,3-dioxolan-4-yl)-1,2-bis(diphenylphosphinooxy)ethyl)-2,2-dimethyl-1,3-dioxolane PdCl₂]

Rakesh K. Sharma, Munirathnam Nethaji and Ashoka G. Samuelson*

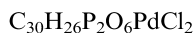
Tetrahedron: Asymmetry 19 (2008) 655



$$[\alpha]_{\text{D}}^{25} = +21.2 \text{ (} c \text{ 1, DMSO)}$$

Source of chirality: ascorbic acid

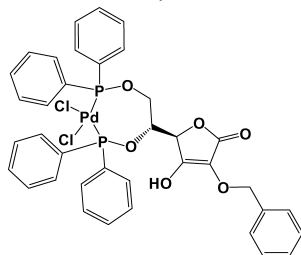
Absolute configuration: (*R,S*)



[(*R*)-5-((*S*)-1,2-Bis(diphenylphosphinooxy)ethyl)-3,4-dihydroxyfuran-2(5*H*)-one PdCl₂]

Rakesh K. Sharma, Munirathnam Nethaji and Ashoka G. Samuelson*

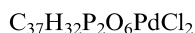
Tetrahedron: Asymmetry 19 (2008) 655



$$[\alpha]_{\text{D}}^{25} = +19.9 \text{ (} c \text{ 1.6, CH}_2\text{Cl}_2\text{)}$$

Source of chirality: ascorbic acid

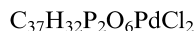
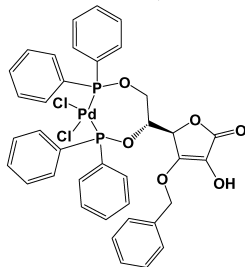
Absolute configuration: (*R,S*)



[(*R*)-5-((*S*)-1,2-Bis(diphenylphosphinooxy)ethyl)-3-(benzyloxy)-4-hydroxyfuran-2(5*H*)-one PdCl₂]

Rakesh K. Sharma, Munirathnam Nethaji and Ashoka G. Samuelson*

Tetrahedron: Asymmetry 19 (2008) 655



[(*R*)-5-((*S*)-1,2-Bis(diphenylphosphinooxy)ethyl)-4-(benzyloxy)-4-hydroxyfuran-2(5*H*)-one PdCl₂]

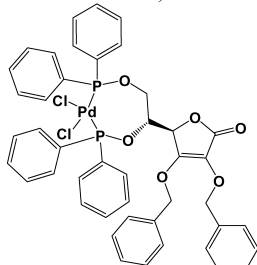
$$[\alpha]_D^{25} = +31.2 \text{ (} c \text{ 1.8, CHCl}_3 \text{)}$$

Source of chirality: ascorbic acid

Absolute configuration: (*R,S*)

Rakesh K. Sharma, Munirathnam Nethaji and Ashoka G. Samuelson*

Tetrahedron: Asymmetry 19 (2008) 655



[(*R*)-5-((*S*)-1,2-Bis(diphenylphosphinooxy)ethyl)-3,4-bis(benzyloxy)furan-2(5*H*)-one PdCl₂]

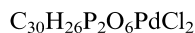
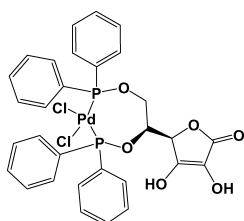
$$[\alpha]_D^{25} = +42.1 \text{ (} c \text{ 1.4, CHCl}_3 \text{)}$$

Source of chirality: ascorbic acid

Absolute configuration: (*R,S*)

Rakesh K. Sharma, Munirathnam Nethaji and Ashoka G. Samuelson*

Tetrahedron: Asymmetry 19 (2008) 655



[(*R*)-5-((*R*)-1,2-Bis(diphenylphosphinooxy)ethyl)-3,4-dihydroxyfuran-2(5*H*)-one PdCl₂]

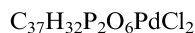
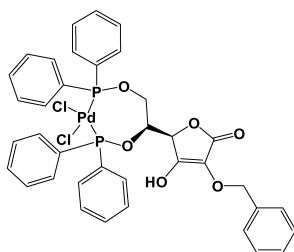
$$[\alpha]_D^{25} = -18.6 \text{ (} c \text{ 0.6, DMSO)}$$

Source of chirality: isoascorbic acid

Absolute configuration: (*R,R*)

Rakesh K. Sharma, Munirathnam Nethaji and Ashoka G. Samuelson*

Tetrahedron: Asymmetry 19 (2008) 655



[(*R*)-5-((*R*)-1,2-Bis(diphenylphosphinooxy)ethyl)-3-(benzyloxy)-4-hydroxyfuran-2(5*H*)-one PdCl₂]

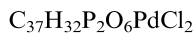
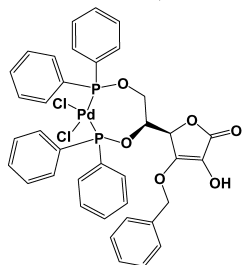
$$[\alpha]_D^{25} = -23.6 \text{ (} c \text{ 1.1, CHCl}_3 \text{)}$$

Source of chirality: isoascorbic acid

Absolute configuration: (*R,R*)

Rakesh K. Sharma, Munirathnam Nethaji and Ashoka G. Samuelson*

Tetrahedron: Asymmetry 19 (2008) 655



[(*R*)-5-((*R*)-1,2-Bis(diphenylphosphino)ethoxy)-4-(benzyloxy)-4-hydroxyfuran-2(5*H*)-one PdCl₂]

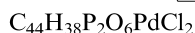
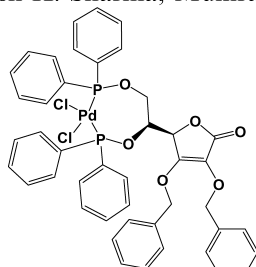
$[\alpha]_D^{25} = -37.3$ (*c* 1.8, CH₂Cl₂)

Source of chirality: isoascorbic acid

Absolute configuration: (*R,R*)

Rakesh K. Sharma, Munirathnam Nethaji and Ashoka G. Samuelson*

Tetrahedron: Asymmetry 19 (2008) 655



[(*R*)-5-((*R*)-1,2-Bis(diphenylphosphino)ethoxy)-3,4-bis(benzyloxy)furan-2(5*H*)-one PdCl₂]

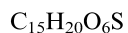
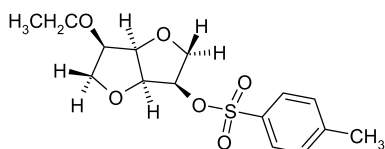
$[\alpha]_D^{25} = -33.9$ (*c* 2.0, CHCl₃)

Source of chirality: isoascorbic acid

Absolute configuration: (*R,R*)

Vineet Kumar, Cao Pei, Carl E. Olsen, Susan J. C. Schäffer, Virinder S. Parmar* and Sanjay V. Malhotra*

Tetrahedron: Asymmetry 19 (2008) 664



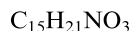
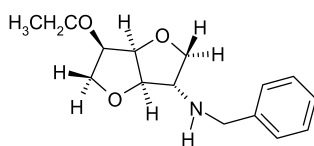
(1*S*,4*R*,5*R*,8*R*)-4-Ethoxy-8-(*p*-toluenesulfonyloxy)-2,6-dioxabicyclo [3.3.0] octane

$[\alpha]_D^{22} = +91.4$ (*c* 0.85, MeOH)

Absolute configuration: (1*S*,4*R*,5*R*,8*R*)

Vineet Kumar, Cao Pei, Carl E. Olsen, Susan J. C. Schäffer, Virinder S. Parmar* and Sanjay V. Malhotra*

Tetrahedron: Asymmetry 19 (2008) 664



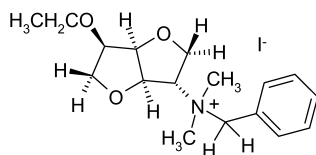
(1*R*,4*R*,5*R*,8*S*)-4-Ethoxy-8-(benzylamino)-2,6-dioxabicyclo [3.3.0] octane

$[\alpha]_D^{22} = +94.0$ (*c* 1.076, MeOH)

Absolute configuration: (1*R*,4*R*,5*R*,8*S*)

Vineet Kumar, Cao Pei, Carl E. Olsen, Susan J. C. Schäffer,
Virinder S. Parmar* and Sanjay V. Malhotra*

Tetrahedron: Asymmetry 19 (2008) 664



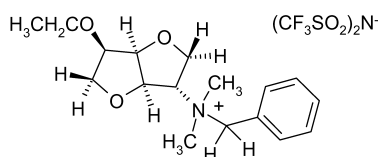
$[\alpha]_D^{22} = +54.8$ (*c* 0.96, MeOH)
Absolute configuration: (1*R*,4*R*,5*R*,8*S*)

$C_{17}H_{26}NO_3I$

((1*R*,4*R*,5*R*,8*S*)-4-Ethoxy-2,6-dioxabicyclo [3.3.0] octan-8-yl)-dimethylbenzylammonium iodide

Vineet Kumar, Cao Pei, Carl E. Olsen, Susan J. C. Schäffer,
Virinder S. Parmar* and Sanjay V. Malhotra*

Tetrahedron: Asymmetry 19 (2008) 664



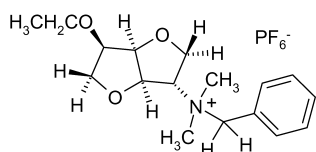
$[\alpha]_D^{22} = +35.6$ (*c* 0.88, MeOH)
Absolute configuration: (1*R*,4*R*,5*R*,8*S*)

$C_{19}H_{26}N_2O_7S_2F_6$

((1*R*,4*R*,5*R*,8*S*)-4-Ethoxy-2,6-dioxabicyclo [3.3.0] octan-8-yl)-dimethylbenzylammonium bis(triflic)imide

Vineet Kumar, Cao Pei, Carl E. Olsen, Susan J. C. Schäffer,
Virinder S. Parmar* and Sanjay V. Malhotra*

Tetrahedron: Asymmetry 19 (2008) 664



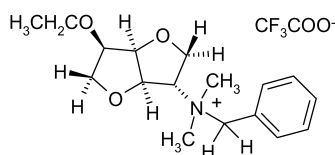
$[\alpha]_D^{22} = +49.8$ (*c* 0.92, MeOH)
Absolute configuration: (1*R*,4*R*,5*R*,8*S*)

$C_{17}H_{26}NO_3PF_6$

((1*R*,4*R*,5*R*,8*S*)-4-Ethoxy-2,6-dioxabicyclo [3.3.0] octan-8-yl)-dimethylbenzylammonium hexafluorophosphate

Vineet Kumar, Cao Pei, Carl E. Olsen, Susan J. C. Schäffer,
Virinder S. Parmar* and Sanjay V. Malhotra*

Tetrahedron: Asymmetry 19 (2008) 664



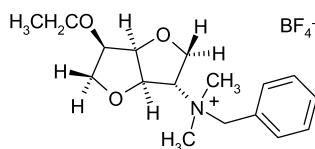
$[\alpha]_D^{22} = +53.1$ (*c* 1, MeOH)
Absolute configuration: (1*R*,4*R*,5*R*,8*S*)

$C_{19}H_{26}NO_5F_3$

((1*R*,4*R*,5*R*,8*S*)-4-Ethoxy-2,6-dioxabicyclo [3.3.0] octan-8-yl)-dimethylbenzylammonium trifluoroacetate

Vineet Kumar, Cao Pei, Carl E. Olsen, Susan J. C. Schäffer,
Virinder S. Parmar* and Sanjay V. Malhotra*

Tetrahedron: Asymmetry 19 (2008) 664



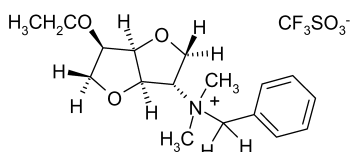
$[\alpha]_{\text{D}}^{22} = +61.3$ (c 1, MeOH)
Absolute configuration: (1*R*,4*R*,5*R*,8*S*)

$\text{C}_{17}\text{H}_{26}\text{NO}_3\text{BF}_4$

((1*R*,4*R*,5*R*,8*S*)-4-Ethoxy-2,6-dioxabicyclo [3.3.0] octan-8-yl)-dimethylbenzylammonium tetrafluoroborate

Vineet Kumar, Cao Pei, Carl E. Olsen, Susan J. C. Schäffer,
Virinder S. Parmar* and Sanjay V. Malhotra*

Tetrahedron: Asymmetry 19 (2008) 664



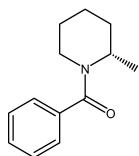
$[\alpha]_{\text{D}}^{22} = +49.8$ (c 0.92, MeOH)

$\text{C}_{18}\text{H}_{26}\text{NO}_6\text{SF}_3$

((1*R*,4*R*,5*R*,8*S*)-4-Ethoxy-2,6-dioxabicyclo [3.3.0] octan-8-yl)-dimethylbenzylammonium trifluoromethanesulfonate

Rachel E. Saxon, Hannes Leisch and Tomas Hudlicky*

Tetrahedron: Asymmetry 19 (2008) 672



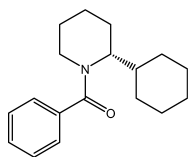
$\text{C}_{13}\text{H}_{17}\text{NO}$

(*S*)-(2-Methyl-piperidin-1-yl)-phenyl-methanone

Ee = 96%
 $[\alpha]_{\text{D}}^{21} = +37.2$ (c 0.95, CHCl_3)
Source of chirality: commercial standard
Absolute configuration: (2*S*)

Rachel E. Saxon, Hannes Leisch and Tomas Hudlicky*

Tetrahedron: Asymmetry 19 (2008) 672



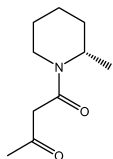
$\text{C}_{18}\text{H}_{25}\text{NO}$

(*R*)-(2-Cyclohexyl-piperidin-1-yl)-phenyl-methanone

Ee = 72%
 $[\alpha]_{\text{D}}^{23} = +47.4$ (c 0.25, CHCl_3)
Source of chirality: biotransformation
Absolute configuration: (2*R*)

Rachel E. Saxon, Hannes Leisch and Tomas Hudlicky*

Tetrahedron: Asymmetry 19 (2008) 672



$C_{10}H_{17}NO_2$

(*S*)-1-(2-Methyl-piperidin-1-yl)-butane-1,3-dione

Ee = 25%

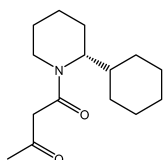
$[\alpha]_D^{22} = +16.35$ (*c* 2.00, $CHCl_3$)

Source of chirality: biotransformation

Absolute configuration: (2*S*)

Rachel E. Saxon, Hannes Leisch and Tomas Hudlicky*

Tetrahedron: Asymmetry 19 (2008) 672



$C_{15}H_{25}NO_2$

(*R*)-1-(2-Cyclohexyl-piperidin-1-yl)-butane-1,3-dione

Ee = 72%

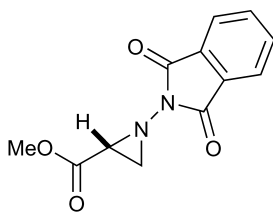
$[\alpha]_D^{22} = +29.7$ (*c* 1.10, $CHCl_3$)

Source of chirality: biotransformation

Absolute configuration: (2*R*)

Pei-Wen Duan, Ching-Chen Chiu, Wei-Der Lee, Li Shiue Pan, Uppala Venkatesham, Zheng-Hao Tzeng and Kwunmin Chen*

Tetrahedron: Asymmetry 19 (2008) 682



$C_{12}H_{10}N_2O_4$

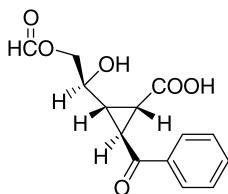
1-(1,3-Dioxo-1,3-dihydro-isoindol-2-yl)-aziridine-(2*R*)-carboxylic acid methyl ester

$[\alpha]_D = +109.5$ (*c* 1, $CHCl_3$)

Absolute configuration: (2*R*)

Alexander V. Samet,* Dmitriy N. Lutov, Leonid D. Konyushkin, Yuri A. Strelenko and Victor V. Semenov

Tetrahedron: Asymmetry 19 (2008) 691



$C_{14}H_{14}O_6$

(1*S*,2*S*,3*S*)-2-Benzoyl-3-((*S*)-2-formyloxy-1-hydroxyethyl)cyclopropanecarboxylic acid

Ee = 100%

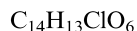
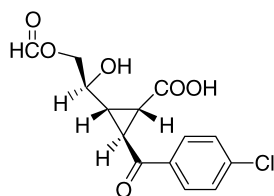
$[\alpha]_D^{20} = +112.4$ (*c* 1.0, DMSO)

Source of chirality: levoglucosenone

Absolute configuration: (1*S*,2*S*,3*S*,1'*S*)

Alexander V. Samet,* Dmitriy N. Lutov, Leonid D. Konyushkin,
Yuri A. Strelenko and Victor V. Semenov

Tetrahedron: Asymmetry 19 (2008) 691



(1*S*,2*S*,3*S*)-2-(4-Chlorobenzoyl)-3-((*S*)-2-formyloxy-1-hydroxyethyl)cyclopropanecarboxylic acid

Ee = 100%

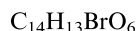
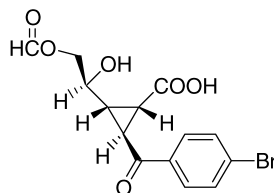
$[\alpha]_D^{20} = +98.0$ (*c* 1.0, DMSO)

Source of chirality: levoglucosenone

Absolute configuration: (1*S*,2*S*,3*S*,1'*S*)

Alexander V. Samet,* Dmitriy N. Lutov, Leonid D. Konyushkin,
Yuri A. Strelenko and Victor V. Semenov

Tetrahedron: Asymmetry 19 (2008) 691



(1*S*,2*S*,3*S*)-2-(4-Bromobenzoyl)-3-((*S*)-2-formyloxy-1-hydroxyethyl)cyclopropanecarboxylic acid

Ee = 100%

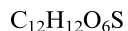
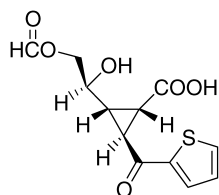
$[\alpha]_D^{20} = +89.6$ (*c* 0.5, DMSO)

Source of chirality: levoglucosenone

Absolute configuration: (1*S*,2*S*,3*S*,1'*S*)

Alexander V. Samet,* Dmitriy N. Lutov, Leonid D. Konyushkin,
Yuri A. Strelenko and Victor V. Semenov

Tetrahedron: Asymmetry 19 (2008) 691



(1*S*,2*S*,3*S*)-2-((*S*)-2-Formyloxy-1-hydroxyethyl)-3-(2-thienoyl)cyclopropanecarboxylic acid

Ee = 100%

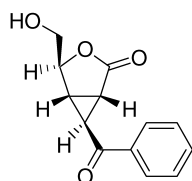
$[\alpha]_D^{20} = +140.0$ (*c* 0.8, DMSO)

Source of chirality: levoglucosenone

Absolute configuration: (1*S*,2*S*,3*S*,1'*S*)

Alexander V. Samet,* Dmitriy N. Lutov, Leonid D. Konyushkin,
Yuri A. Strelenko and Victor V. Semenov

Tetrahedron: Asymmetry 19 (2008) 691



(1*S*,4*S*,5*S*,6*S*)-6-Benzoyl-4-hydroxymethyl-3-oxabicyclo[3.1.0]hexane-2-one

Ee = 100%

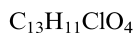
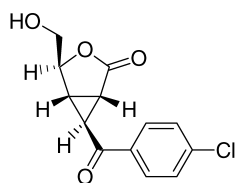
$[\alpha]_D^{20} = +112.8$ (*c* 1.0, DMSO)

Source of chirality: levoglucosenone

Absolute configuration: (1*S*,4*S*,5*S*,6*S*)

Alexander V. Samet,* Dmitriy N. Lutov, Leonid D. Konyushkin,
Yuri A. Strelenko and Victor V. Semenov

Tetrahedron: Asymmetry 19 (2008) 691



(1*S*,4*S*,5*S*,6*S*)-6-(4-Chlorobenzoyl)-4-hydroxymethyl-3-oxabicyclo[3.1.0]hexane-2-one

Ee = 100%

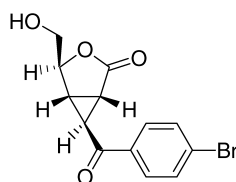
$[\alpha]_D^{20} = +88.1$ (c 1.0, DMSO)

Source of chirality: levoglucosenone

Absolute configuration: (1*S*,4*S*,5*S*,6*S*)

Alexander V. Samet,* Dmitriy N. Lutov, Leonid D. Konyushkin,
Yuri A. Strelenko and Victor V. Semenov

Tetrahedron: Asymmetry 19 (2008) 691



(1*S*,4*S*,5*S*,6*S*)-6-(4-Bromobenzoyl)-4-hydroxymethyl-3-oxabicyclo[3.1.0]hexane-2-one

Ee = 100%

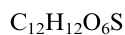
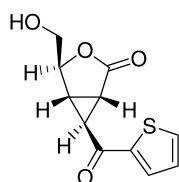
$[\alpha]_D^{20} = +79.7$ (c 1.0, DMSO)

Source of chirality: levoglucosenone

Absolute configuration: (1*S*,4*S*,5*S*,6*S*)

Alexander V. Samet,* Dmitriy N. Lutov, Leonid D. Konyushkin,
Yuri A. Strelenko and Victor V. Semenov

Tetrahedron: Asymmetry 19 (2008) 691



(1*S*,4*S*,5*S*,6*S*)-4-Hydroxymethyl-6-(2-thienoyl)-3-oxabicyclo[3.1.0]hexane-2-one

Ee = 100%

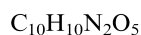
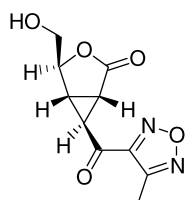
$[\alpha]_D^{20} = +112.4$ (c 1.0, DMSO)

Source of chirality: levoglucosenone

Absolute configuration: (1*S*,4*S*,5*S*,6*S*)

Alexander V. Samet,* Dmitriy N. Lutov, Leonid D. Konyushkin,
Yuri A. Strelenko and Victor V. Semenov

Tetrahedron: Asymmetry 19 (2008) 691



(1*S*,4*S*,5*S*,6*S*)-4-Hydroxymethyl-6-(4-methylfuryl)carbonyl-3-oxabicyclo[3.1.0]hexane-2-one

Ee = 100%

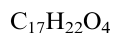
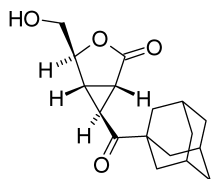
$[\alpha]_D^{24} = +97.2$ (c 1.0, DMSO)

Source of chirality: levoglucosenone

Absolute configuration: (1*S*,4*S*,5*S*,6*S*)

Alexander V. Samet,* Dmitriy N. Lutov, Leonid D. Konyushkin,
Yuri A. Strelenko and Victor V. Semenov

Tetrahedron: Asymmetry 19 (2008) 691



(1*S*,4*S*,5*S*,6*S*)-6-(1-Adamantoyl)-4-hydroxymethyl-3-oxabicyclo[3.1.0]hexane-2-one

Ee = 100%

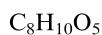
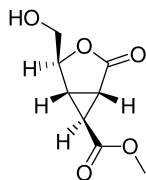
$[\alpha]_D^{20} = +84.1$ (*c* 1.0, DMSO)

Source of chirality: levoglucosenone

Absolute configuration: (1*S*,4*S*,5*S*,6*S*)

Alexander V. Samet,* Dmitriy N. Lutov, Leonid D. Konyushkin,
Yuri A. Strelenko and Victor V. Semenov

Tetrahedron: Asymmetry 19 (2008) 691



(1*S*,4*S*,5*S*,6*S*)-Methyl 4-hydroxymethyl-2-oxo-3-oxabicyclo[3.1.0]hexane-6-carboxylate

Ee = 100%

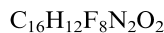
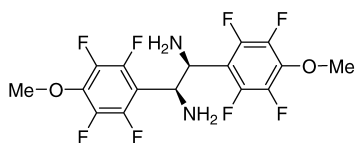
$[\alpha]_D^{20} = +98.8$ (*c* 1.0, DMSO)

Source of chirality: levoglucosenone

Absolute configuration: (1*S*,4*S*,5*S*,6*S*)

Toshinobu Korenaga,* Kenji Nomura, Shinichi Minami, Hitomi Sasaki
and Takashi Sakai*

Tetrahedron: Asymmetry 19 (2008) 695



(1*S*,2*S*)-1,2-Bis(4-methoxy-2,3,5,6-tetrafluorophenyl)ethane-1,2-diamine

Ee >99%

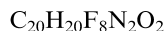
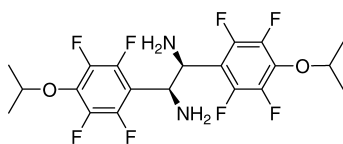
$[\alpha]_D^{20} = -85.8$ (*c* 0.50, MeOH)

Source of chirality: enantiopure starting material

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

Toshinobu Korenaga,* Kenji Nomura, Shinichi Minami, Hitomi Sasaki
and Takashi Sakai*

Tetrahedron: Asymmetry 19 (2008) 695



(1*S*,2*S*)-1,2-Bis(4-isopropoxy-2,3,5,6-tetrafluorophenyl)ethane-1,2-diamine

Ee >99%

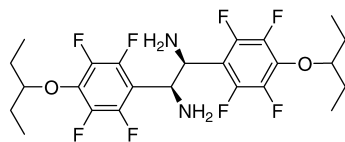
$[\alpha]_D^{30} = -92.5$ (*c* 0.21, MeOH)

Source of chirality: enantiopure starting material

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

Toshinobu Korenaga,* Kenji Nomura, Shinichi Minami, Hitomi Sasaki and Takashi Sakai*

Tetrahedron: Asymmetry 19 (2008) 695



(1*S*,2*S*)-1,2-Bis(4-(pentan-3-yloxy)-2,3,5,6-tetrafluorophenyl)ethane-1,2-diamine

Ee >99%

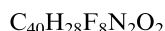
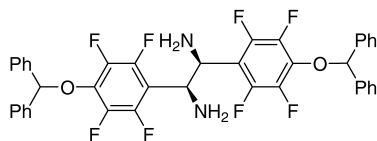
$[\alpha]_D^{16} = -51.4$ (c 1.6, MeOH)

Source of chirality: enantiopure starting material

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

Toshinobu Korenaga,* Kenji Nomura, Shinichi Minami, Hitomi Sasaki and Takashi Sakai*

Tetrahedron: Asymmetry 19 (2008) 695



(1*S*,2*S*)-1,2-Bis(4-benzhydryloxy-2,3,5,6-tetrafluorophenyl)ethane-1,2-diamine

Ee >99%

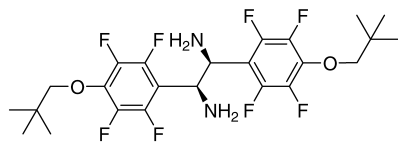
$[\alpha]_D^{32} = -41.9$ (c 0.19, MeOH)

Source of chirality: enantiopure starting material

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

Toshinobu Korenaga,* Kenji Nomura, Shinichi Minami, Hitomi Sasaki and Takashi Sakai*

Tetrahedron: Asymmetry 19 (2008) 695



(1*S*,2*S*)-1,2-Bis(4-neopentyloxy-2,3,5,6-tetrafluorophenyl)ethane-1,2-diamine

Ee >99%

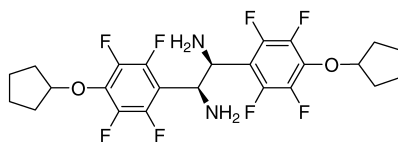
$[\alpha]_D^{30} = -89.2$ (c 0.45, MeOH)

Source of chirality: enantiopure starting material

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

Toshinobu Korenaga,* Kenji Nomura, Shinichi Minami, Hitomi Sasaki and Takashi Sakai*

Tetrahedron: Asymmetry 19 (2008) 695



(1*S*,2*S*)-1,2-Bis(4-cyclopentyloxy-2,3,5,6-tetrafluorophenyl)ethane-1,2-diamine

Ee >99%

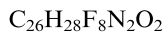
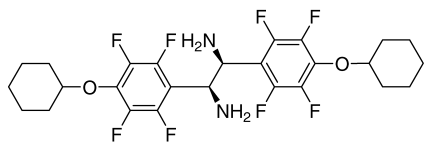
$[\alpha]_D^{31} = -77.2$ (c 0.54, MeOH)

Source of chirality: enantiopure starting material

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

Toshinobu Korenaga,* Kenji Nomura, Shinichi Minami, Hitomi Sasaki and Takashi Sakai*

Tetrahedron: Asymmetry 19 (2008) 695



(1*S*,2*S*)-1,2-Bis(4-cyclohexyloxy-2,3,5,6-tetrafluorophenyl)ethane-1,2-diamine

Ee >99%

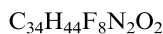
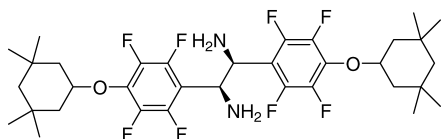
$[\alpha]_D^{32} = -80.2$ (*c* 0.13, MeOH)

Source of chirality: enantiopure starting material

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

Toshinobu Korenaga,* Kenji Nomura, Shinichi Minami, Hitomi Sasaki and Takashi Sakai*

Tetrahedron: Asymmetry 19 (2008) 695



(1*S*,2*S*)-1,2-Bis(2,3,5,6-tetrafluoro-4-(3,3,5,5-tetramethylcyclohexyloxy)phenyl)ethane-1,2-diamine

Ee >99%

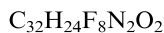
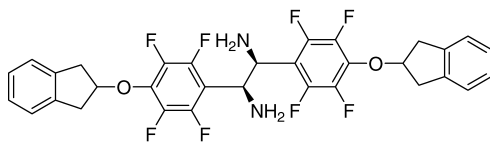
$[\alpha]_D^{32} = -95.8$ (*c* 0.78, MeOH)

Source of chirality: enantiopure starting material

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

Toshinobu Korenaga,* Kenji Nomura, Shinichi Minami, Hitomi Sasaki and Takashi Sakai*

Tetrahedron: Asymmetry 19 (2008) 695



(1*S*,2*S*)-1,2-Bis(4-(2,3-dihydro-1*H*-inden-2-yloxy)-2,3,5,6-tetrafluorophenyl)ethane-1,2-diamine

Ee >99%

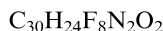
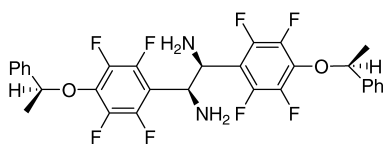
$[\alpha]_D^{32} = -72.8$ (*c* 0.18, MeOH)

Source of chirality: enantiopure starting material

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

Toshinobu Korenaga,* Kenji Nomura, Shinichi Minami, Hitomi Sasaki and Takashi Sakai*

Tetrahedron: Asymmetry 19 (2008) 695



(1*S*,2*S*)-1,2-Bis(4-((*S*)-1-phenylethoxy)-2,3,5,6-tetrafluorophenyl)ethane-1,2-diamine

Ee >99%

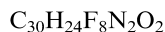
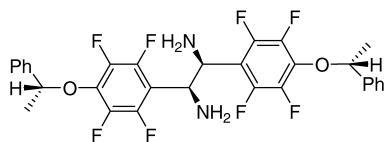
$[\alpha]_D^{32} = -177.3$ (*c* 0.23, MeOH)

Source of chirality: enantiopure starting material

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

Toshinobu Korenaga,* Kenji Nomura, Shinichi Minami, Hitomi Sasaki and Takashi Sakai*

Tetrahedron: Asymmetry 19 (2008) 695



(1*S*,2*S*)-1,2-Bis(4-((*R*)-1-phenylethoxy)-2,3,5,6-tetrafluorophenyl)ethane-1,2-diamine

Ee >99%

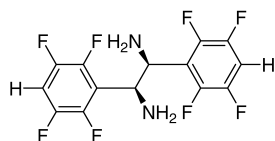
$[\alpha]_D^{32} = +63.9$ (*c* 0.55, MeOH)

Source of chirality: enantiopure starting material

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

Toshinobu Korenaga,* Kenji Nomura, Shinichi Minami, Hitomi Sasaki and Takashi Sakai*

Tetrahedron: Asymmetry 19 (2008) 695



(1*S*,2*S*)-1,2-Bis(2,3,5,6-tetrafluorophenyl)ethane-1,2-diamine

Ee >99%

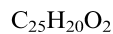
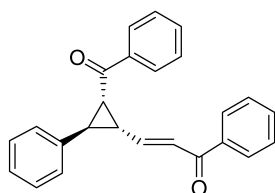
$[\alpha]_D^{18} = -61.9$ (*c* 1.8, MeOH)

Source of chirality: enantiopure starting material

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

Yun-Hui Zhao, Chang-Wu Zheng, Gang Zhao* and Wei-Guo Cao*

Tetrahedron: Asymmetry 19 (2008) 701



(*E*)-3-((1*R*,2*R*,3*R*)-2-Benzoyl-3-phenylcyclopropyl)-1-phenylprop-2-en-1-one

Ee = 98%

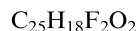
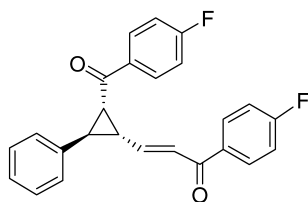
$[\alpha]_D^{25} = -36.0$ (*c* 1.53, CHCl₃)

Source of chirality: asymmetric synthesis

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

Yun-Hui Zhao, Chang-Wu Zheng, Gang Zhao* and Wei-Guo Cao*

Tetrahedron: Asymmetry 19 (2008) 701



(*E*)-3-((1*R*,2*R*,3*R*)-2-(4-Fluorobenzoyl)-3-phenylcyclopropyl)-1-(4-fluorophenylprop)-2-en-1-one

Ee = 99%

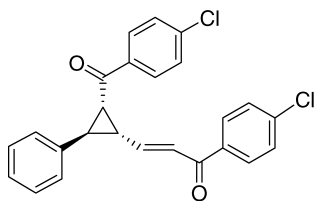
$[\alpha]_D^{25} = +7.7$ (*c* 0.88, CHCl₃)

Source of chirality: asymmetric synthesis

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

Yun-Hui Zhao, Chang-Wu Zheng, Gang Zhao* and Wei-Guo Cao*

Tetrahedron: Asymmetry 19 (2008) 701



$C_{25}H_{18}Cl_2O_2$

(*E*)-3-((1*R*,2*R*,3*R*)-2-(4-Chlorobenzoyl)-3-phenylcyclopropyl)-1-(4-chlorophenylprop)-2-en-1-one

Ee = 99%

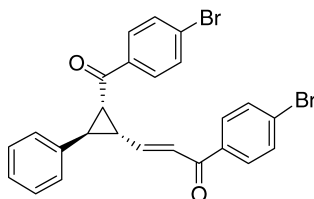
$[\alpha]_D^{25} = -21.3$ (c 0.83, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Yun-Hui Zhao, Chang-Wu Zheng, Gang Zhao* and Wei-Guo Cao*

Tetrahedron: Asymmetry 19 (2008) 701



$C_{25}H_{18}Br_2O_2$

(*E*)-3-((1*R*,2*R*,3*R*)-2-(4-Bromobenzoyl)-3-phenylcyclopropyl)-1-(4-bromophenylprop)-2-en-1-one

Ee = 93%

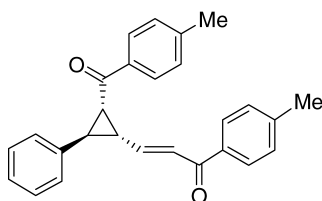
$[\alpha]_D^{25} = -31.2$ (c 0.74, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Yun-Hui Zhao, Chang-Wu Zheng, Gang Zhao* and Wei-Guo Cao*

Tetrahedron: Asymmetry 19 (2008) 701



$C_{27}H_{24}O_2$

(*E*)-3-((1*R*,2*R*,3*R*)-2-(4-Methylbenzoyl)-3-phenylcyclopropyl)-1-(4-methylphenylprop)-2-en-1-one

Ee = 99%

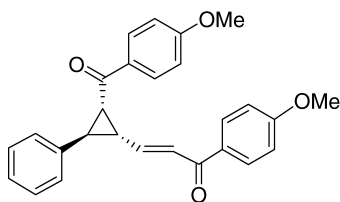
$[\alpha]_D^{25} = -10.2$ (c 0.61, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Yun-Hui Zhao, Chang-Wu Zheng, Gang Zhao* and Wei-Guo Cao*

Tetrahedron: Asymmetry 19 (2008) 701



$C_{27}H_{24}O_4$

(*E*)-3-((1*R*,2*R*,3*R*)-2-(4-Methoxybenzoyl)-3-phenylcyclopropyl)-1-(4-methoxyphenylprop)-2-en-1-one

Ee = 94%

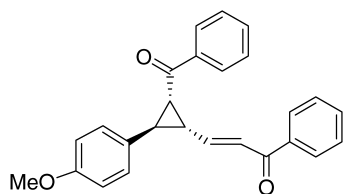
$[\alpha]_D^{25} = 55.2$ (c 0.32, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Yun-Hui Zhao, Chang-Wu Zheng, Gang Zhao* and Wei-Guo Cao*

Tetrahedron: Asymmetry 19 (2008) 701



$C_{26}H_{22}O_3$

(*E*)-3-((1*R*,2*R*,3*R*)-2-Benzoyl-3-(4-methoxyphenyl)-cyclopropyl)-1-phenylprop-2-en-1-one

Ee = 92%

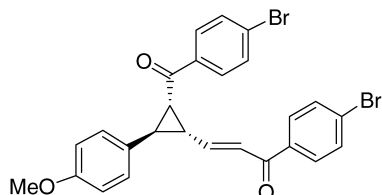
$[\alpha]_D^{25} = -10.2$ (*c* 0.74, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Yun-Hui Zhao, Chang-Wu Zheng, Gang Zhao* and Wei-Guo Cao*

Tetrahedron: Asymmetry 19 (2008) 701



$C_{26}H_{20}Br_2O_3$

(*E*)-3-((1*R*,2*R*,3*R*)-2-(4-Bromobenzoyl)-3-(4-methoxyphenyl)-cyclopropyl)-1-(4-bromophenylprop)-2-en-1-one

Ee = 87%

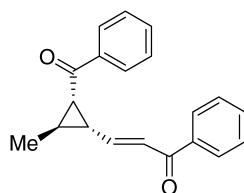
$[\alpha]_D^{25} = -29.7$ (*c* 1.00, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Yun-Hui Zhao, Chang-Wu Zheng, Gang Zhao* and Wei-Guo Cao*

Tetrahedron: Asymmetry 19 (2008) 701



$C_{20}H_{18}O_2$

(*E*)-3-((1*R*,2*R*,3*R*)-2-Benzoyl-3-methyl-cyclopropyl)-1-phenylprop-2-en-1-one

Ee = 71%

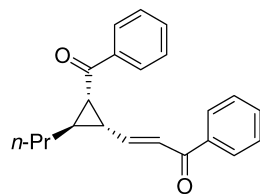
$[\alpha]_D^{25} = -22.2$ (*c* 0.38, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Yun-Hui Zhao, Chang-Wu Zheng, Gang Zhao* and Wei-Guo Cao*

Tetrahedron: Asymmetry 19 (2008) 701



$C_{22}H_{22}O_2$

(*E*)-3-((1*R*,2*R*,3*R*)-2-Benzoyl-3-propyl-cyclopropyl)-1-phenylprop-2-en-1-one

Ee = 80%

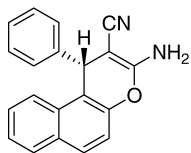
$[\alpha]_D^{25} = -33.2$ (*c* 0.34, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Xiao-Sheng Wang, Gao-Sheng Yang* and Gang Zhao*

Tetrahedron: Asymmetry 19 (2008) 709



$C_{20}H_{14}N_2O$

(*S*)-3-Amino-1-phenyl-1*H*-benzo[*f*]chromene-2-carbonitrile

Ee = 68%

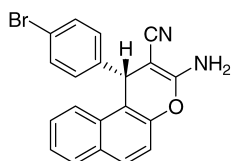
$[\alpha]_D^{23.8} = -5.2$ (*c* 1.15, DMSO)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Xiao-Sheng Wang, Gao-Sheng Yang* and Gang Zhao*

Tetrahedron: Asymmetry 19 (2008) 709



$C_{20}H_{13}BrN_2O$

(*S*)-3-Amino-1-(4-bromophenyl)-1*H*-benzo[*f*]chromene-2-carbonitrile

Ee = 71%

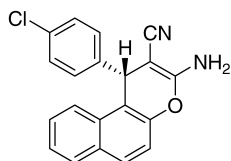
$[\alpha]_D^{27.7} = -57.3$ (*c* 0.93, DMSO)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Xiao-Sheng Wang, Gao-Sheng Yang* and Gang Zhao*

Tetrahedron: Asymmetry 19 (2008) 709



$C_{20}H_{13}ClN_2O$

(*S*)-3-Amino-1-(4-chlorophenyl)-1*H*-benzo[*f*]chromene-2-carbonitrile

Ee = 84%

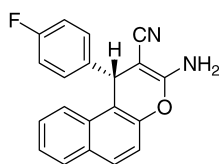
$[\alpha]_D^{24.8} = -43.9$ (*c* 0.7, DMSO)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Xiao-Sheng Wang, Gao-Sheng Yang* and Gang Zhao*

Tetrahedron: Asymmetry 19 (2008) 709



$C_{20}H_{13}FN_2O$

(*S*)-3-Amino-1-(4-fluorophenyl)-1*H*-benzo[*f*]chromene-2-carbonitrile

Ee = 90%

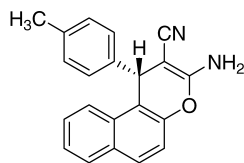
$[\alpha]_D^{27.1} = -2.8$ (*c* 0.64, DMSO)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Xiao-Sheng Wang, Gao-Sheng Yang* and Gang Zhao*

Tetrahedron: Asymmetry 19 (2008) 709



$C_{21}H_{16}N_2O$

(*S*)-3-Amino-1-*p*-tolyl-1*H*-benzo[*f*]chromene-2-carbonitrile

Ee = 79%

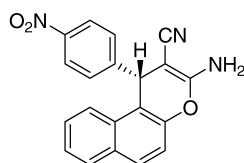
$[\alpha]_D^{24.3} = -20.3$ (*c* 3.05, DMSO)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Xiao-Sheng Wang, Gao-Sheng Yang* and Gang Zhao*

Tetrahedron: Asymmetry 19 (2008) 709



$C_{20}H_{13}N_3O_3$

(*S*)-3-Amino-1-(4-nitrophenyl)-1*H*-benzo[*f*]chromene-2-carbonitrile

Ee = 65%

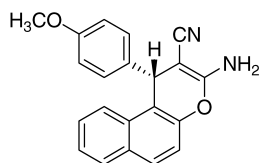
$[\alpha]_D^{27.4} = -115.9$ (*c* 0.4, DMSO)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Xiao-Sheng Wang, Gao-Sheng Yang* and Gang Zhao*

Tetrahedron: Asymmetry 19 (2008) 709



$C_{21}H_{16}N_2O_2$

(*S*)-3-Amino-1-(4-methoxyphenyl)-1*H*-benzo[*f*]chromene-2-carbonitrile

Ee = 62%

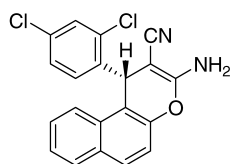
$[\alpha]_D^{27.1} = -19.5$ (*c* 0.65, DMSO)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Xiao-Sheng Wang, Gao-Sheng Yang* and Gang Zhao*

Tetrahedron: Asymmetry 19 (2008) 709



$C_{20}H_{13}Cl_2N_2O$

(*S*)-3-Amino-1-(2,4-dichlorophenyl)-1*H*-benzo[*f*]chromene-2-carbonitrile

Ee = 56%

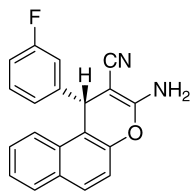
$[\alpha]_D^{26.8} = +4.3$ (*c* 0.73, DMSO)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Xiao-Sheng Wang, Gao-Sheng Yang* and Gang Zhao*

Tetrahedron: Asymmetry 19 (2008) 709



$C_{20}H_{13}FN_2O$

(S)-3-Amino-1-(3-fluorophenyl)-1H-benzo[f]chromene-2-carbonitrile

Ee = 70%

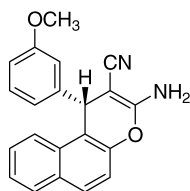
$[\alpha]_D^{27.5} = -21.7$ (c 0.62, DMSO)

Source of chirality: asymmetric synthesis

Absolute configuration: (S)

Xiao-Sheng Wang, Gao-Sheng Yang* and Gang Zhao*

Tetrahedron: Asymmetry 19 (2008) 709



$C_{21}H_{16}N_2O_2$

(S)-3-Amino-1-(3-methoxyphenyl)-1H-benzo[f]chromene-2-carbonitrile

Ee = 76%

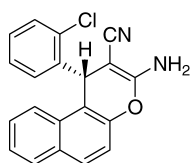
$[\alpha]_D^{27.3} = -6.6$ (c 0.77, DMSO)

Source of chirality: asymmetric synthesis

Absolute configuration: (S)

Xiao-Sheng Wang, Gao-Sheng Yang* and Gang Zhao*

Tetrahedron: Asymmetry 19 (2008) 709



$C_{20}H_{13}ClN_2O$

(S)-3-Amino-1-(2-chlorophenyl)-1H-benzo[f]chromene-2-carbonitrile

Ee = 67%

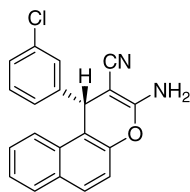
$[\alpha]_D^{23.9} = +28.5$ (c 0.48, DMSO)

Source of chirality: asymmetric synthesis

Absolute configuration: (S)

Xiao-Sheng Wang, Gao-Sheng Yang* and Gang Zhao*

Tetrahedron: Asymmetry 19 (2008) 709



$C_{20}H_{13}ClN_2O$

(S)-3-Amino-1-(3-chlorophenyl)-1H-benzo[f]chromene-2-carbonitrile

Ee = 65%

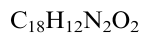
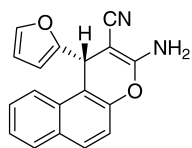
$[\alpha]_D^{25.0} = -18.4$ (c 0.62, DMSO)

Source of chirality: asymmetric synthesis

Absolute configuration: (S)

Xiao-Sheng Wang, Gao-Sheng Yang* and Gang Zhao*

Tetrahedron: Asymmetry 19 (2008) 709



(*S*)-3-Amino-1-(furan-2-yl)-1*H*-benzo[*f*]chromene-2-carbonitrile

Ee = 61%

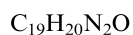
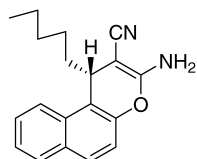
$[\alpha]_D^{27.3} = -45.5$ (*c* 0.41, DMSO)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Xiao-Sheng Wang, Gao-Sheng Yang* and Gang Zhao*

Tetrahedron: Asymmetry 19 (2008) 709



(*S*)-3-Amino-1-pentyl-1*H*-benzo[*f*]chromene-2-carbonitrile

Ee = 57%

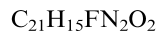
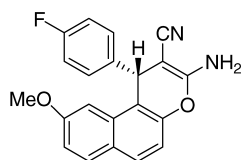
$[\alpha]_D^{27.8} = +5.5$ (*c* 0.64, $CDCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Xiao-Sheng Wang, Gao-Sheng Yang* and Gang Zhao*

Tetrahedron: Asymmetry 19 (2008) 709



(*S*)-3-Amino-1-(4-fluorophenyl)-9-methoxy-1*H*-benzo[*f*]chromene-2-carbonitrile

Ee = 66%

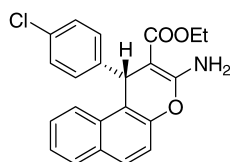
$[\alpha]_D^{24.6} = -51.35$ (*c* 0.54, DMSO)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Xiao-Sheng Wang, Gao-Sheng Yang* and Gang Zhao*

Tetrahedron: Asymmetry 19 (2008) 709



(*S*)-Ethyl 3-amino-1-(4-chlorophenyl)-1*H*-benzo[*f*]chromene-2-carboxylate

Ee = 34%

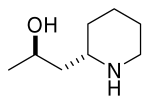
$[\alpha]_D^{12.7} = +2.5$ (*c* 0.33, $CDCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Li-Ju Chen and Duen-Ren Hou*

Tetrahedron: Asymmetry 19 (2008) 715



$C_8H_{17}NO$

(-)-Allosedridine

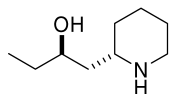
$$[\alpha]_D^{20} = -20.7 (c\ 0.22, \text{MeOH})$$

Source of chirality: (*R*)- α -methylbenzylamine

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

Li-Ju Chen and Duen-Ren Hou*

Tetrahedron: Asymmetry 19 (2008) 715



$C_9H_{19}NO$

(-)-2-*epi*-Ethylnorlobelol

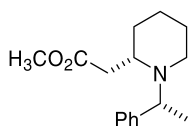
$$[\alpha]_D^{20} = -6.8 (c\ 0.24, \text{EtOH})$$

Source of chirality: (*R*)- α -methylbenzylamine

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

Li-Ju Chen and Duen-Ren Hou*

Tetrahedron: Asymmetry 19 (2008) 715



$C_{16}H_{23}NO_2$

Methyl (2*S*)-1-[(1*R*)-1-phenylethyl]piperidineacetate

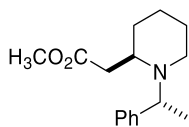
$$[\alpha]_D^{20} = +39.2 (c\ 1, \text{CHCl}_3)$$

Source of chirality: (*R*)- α -methylbenzylamine

Absolute configuration: (2*S*, α *R*)

Li-Ju Chen and Duen-Ren Hou*

Tetrahedron: Asymmetry 19 (2008) 715



$C_{16}H_{23}NO_2$

Methyl (2*R*)-1-[(1*R*)-1-phenylethyl]piperidineacetate

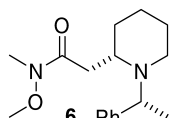
$$[\alpha]_D^{20} = +9.7 (c\ 1.5, \text{CHCl}_3)$$

Source of chirality: (*R*)- α -methylbenzylamine

Absolute configuration: (2*R*, α *R*)

Li-Ju Chen and Duen-Ren Hou*

Tetrahedron: Asymmetry 19 (2008) 715



$C_{17}H_{26}N_2O_2$

N-Methoxy-*N*-methyl (2*S*)-1-[(1*R*)-1-phenylethyl]piperidineacetamide

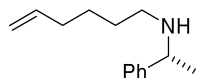
$[\alpha]_D^{20} = +20.4$ (*c* 1, $CHCl_3$)

Source of chirality: (*R*)- α -methylbenzylamine

Absolute configuration: (2*S*, α *R*)

Li-Ju Chen and Duen-Ren Hou*

Tetrahedron: Asymmetry 19 (2008) 715



$C_{14}H_{21}N$

(*R*)-*N*-(1-Phenylethyl)-5-hexenyl amine

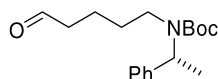
$[\alpha]_D^{20} = +46.8$ (*c* 1, $CHCl_3$)

Source of chirality: (*R*)- α -methylbenzylamine

Absolute configuration: (α *R*)

Li-Ju Chen and Duen-Ren Hou*

Tetrahedron: Asymmetry 19 (2008) 715



$C_{18}H_{27}NO_3$

tert-Butyl 5-oxopentyl (*R*)-(1-phenylethyl)carbamate

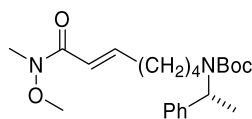
$[\alpha]_D^{20} = +71.7$ (*c* 1, $CHCl_3$)

Source of chirality: (*R*)- α -methylbenzylamine

Absolute configuration: (α *R*)

Li-Ju Chen and Duen-Ren Hou*

Tetrahedron: Asymmetry 19 (2008) 715



$C_{22}H_{34}N_2O_4$

tert-Butyl 7-[methoxy(methyl)amino]-7-oxo-(5,*E*)-hepten-yl-(*R*)-(1-phenylethyl)carbamate

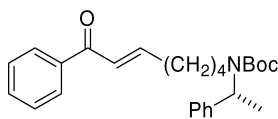
$[\alpha]_D^{20} = +54.0$ (*c* 1, $CHCl_3$)

Source of chirality: (*R*)- α -methylbenzylamine

Absolute configuration: (α *R*)

Li-Ju Chen and Duen-Ren Hou*

Tetrahedron: Asymmetry 19 (2008) 715



$C_{26}H_{33}NO_3$

tert-Butyl (7-oxo-7-phenyl-(5,E)-heptenyl)-(R)-(1-phenylethyl)carbamate

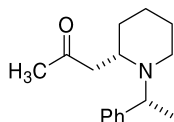
$$[\alpha]_D^{20} = +49.0 (c\ 1, CHCl_3)$$

Source of chirality: (R)- α -methylbenzylamine

Absolute configuration: (αR)

Li-Ju Chen and Duen-Ren Hou*

Tetrahedron: Asymmetry 19 (2008) 715



$C_{26}H_{23}NO$

1-[(2S)-1-[(1R)-1-Phenylethyl]-2-piperidinyl]-2-propanone

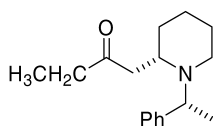
$$[\alpha]_D^{20} = +41.4 (c\ 1.1, CHCl_3)$$

Source of chirality: (R)- α -methylbenzylamine

Absolute configuration: (2S, αR)

Li-Ju Chen and Duen-Ren Hou*

Tetrahedron: Asymmetry 19 (2008) 715



$C_{17}H_{25}NO$

Methyl (2S)-1-[(1R)-1-phenylethyl]piperidineacetate

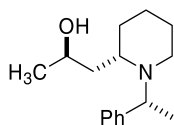
$$[\alpha]_D^{20} = +32.6 (c\ 0.8, CHCl_3)$$

Source of chirality: (R)- α -methylbenzylamine

Absolute configuration: (2S, αR)

Li-Ju Chen and Duen-Ren Hou*

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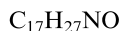
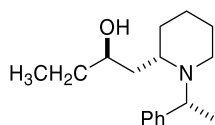
$C_{16}H_{25}NO$

(R)-1-((S)-1-((R)-1-Phenylethyl)-2-piperidinyl)propan-2-ol

$$[\alpha]_D^{20} = +13.5 (c\ 0.4, CHCl_3)$$

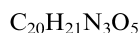
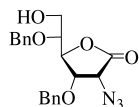
Source of chirality: (R)- α -methylbenzylamine

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



(R)-1-((S)-1-((R)-1-Phenylethyl)-2-piperidiny)butan-2-ol

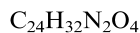
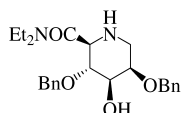
$$[\alpha]_{\text{D}}^{20} = +5.8 \text{ (} c \text{ 0.35, CHCl}_3 \text{)}$$



2-Azido-2-deoxy-3,5-di-O-benzyl-D-allono-1,4-lactone

$$[\alpha]_{\text{D}}^{27} = +11 \text{ (} c \text{ 1.8, CH}_2\text{Cl}_2 \text{)}$$

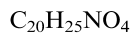
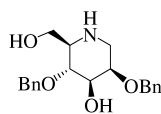
Source of chirality: D-erythrose and stereoselective synthesis



1,5-Dideoxy-1,5-imino-2,4-di-O-benzyl-N,N-diethyl-D-mannopyranosiduronamide

$$[\alpha]_{\text{D}}^{27} = -83 \text{ (} c \text{ 1.1, CH}_2\text{Cl}_2 \text{)}$$

Source of chirality: D-erythrose, stereoselective synthesis and stereospecific cyclization



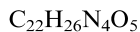
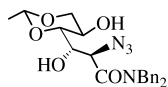
2,4-Di-O-Benzyl-1-deoxymannojirimicin

$$[\alpha]_{\text{D}}^{27} = -5.5 \text{ (} c \text{ 0.7, CH}_2\text{Cl}_2 \text{)}$$

Source of chirality: D-erythrose, stereoselective synthesis and stereospecific cyclization

M. Soledad Pino-González* and Noé Oña

Tetrahedron: Asymmetry 19 (2008) 721



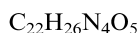
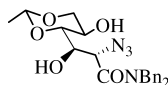
2-Azido-*N,N*-dibenzyl-4,6-*O*-ethylidene-*D*-*allo*-hexonamide

$$[\alpha]_{\text{D}}^{25} = -171 \text{ (} c \text{ 1, CH}_2\text{Cl}_2 \text{)}$$

Source of chirality: *D*-erythrose and stereoselective synthesis

M. Soledad Pino-González* and Noé Oña

Tetrahedron: Asymmetry 19 (2008) 721



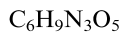
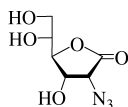
2-Azido-*N,N*-dibenzyl-4,6-*O*-ethylidene-*D*-*manno*-hexonamide

$$[\alpha]_{\text{D}}^{25} = +40 \text{ (} c \text{ 0.8, CH}_2\text{Cl}_2 \text{)}$$

Source of chirality: *D*-erythrose and stereoselective synthesis

M. Soledad Pino-González* and Noé Oña

Tetrahedron: Asymmetry 19 (2008) 721



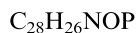
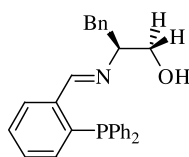
2-Azido-2-deoxy-*D*-allono-1,4-lactone

$$[\alpha]_{\text{D}}^{20} = -3.5 \text{ (} c \text{ 1.3, MeOH)}$$

Source of chirality: *D*-erythrose and stereoselective synthesis

Deepak Baburao Biradar and Han-Mou Gau*

Tetrahedron: Asymmetry 19 (2008) 733



(*S*)-2-(2-(Diphenylphosphino)benzylideneamino)-3-phenylpropan-1-ol

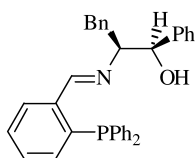
$$[\alpha]_{\text{D}}^{25} = -117 \text{ (} c \text{ 1, CH}_2\text{Cl}_2 \text{)}$$

Absolute configuration: (*S*)

Source of chirality: *L*-phenylalanine as starting material

Deepak Baburao Biradar and Han-Mou Gau*

Tetrahedron: Asymmetry 19 (2008) 733



$C_{34}H_{30}NOP$

(1*R*,2*S*)-2-[2-(Diphenylphosphino)benzylideneamino]-1,3-diphenylpropan-1-ol

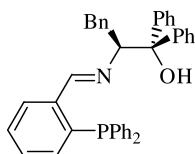
$[\alpha]_D^{25} = -87.5$ (*c* 1, CH_2Cl_2)

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

Source of chirality: L-phenylalanine as starting material

Deepak Baburao Biradar and Han-Mou Gau*

Tetrahedron: Asymmetry 19 (2008) 733



$C_{40}H_{34}NOP$

(*S*)-2-(2-(Diphenylphosphino)benzylideneamino)-1,1,3-triphenylpropan-1-ol

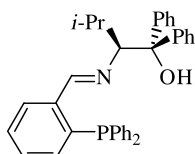
$[\alpha]_D^{25} = -83.5$ (*c* 1, CH_2Cl_2)

Absolute configuration: (*S*)

Source of chirality: L-phenylalanine as starting material

Deepak Baburao Biradar and Han-Mou Gau*

Tetrahedron: Asymmetry 19 (2008) 733



$C_{36}H_{34}NOP$

(*S*)-2-(2-(Diphenylphosphino)benzylideneamino)-3-methyl-1,1-diphenylbutan-1-ol

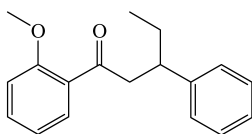
$[\alpha]_D^{25} = -16.05$ (*c* 1, CH_2Cl_2)

Absolute configuration: (*S*)

Source of chirality: L-valine as starting material

Deepak Baburao Biradar and Han-Mou Gau*

Tetrahedron: Asymmetry 19 (2008) 733



$C_{18}H_{20}O_2$

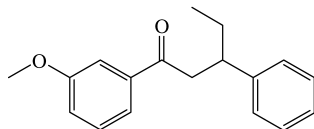
1-(2-Methoxyphenyl)-3-phenylpentan-1-one

Ee = 81%

$[\alpha]_D^{25} = -16.05$ (*c* 1, CH_2Cl_2)

Deepak Baburao Biradar and Han-Mou Gau*

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$C_{18}H_{20}O_2$

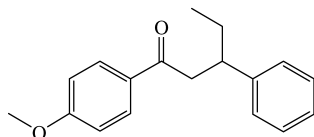
1-(3-Methoxyphenyl)-3-phenyl-pentan-1-one

Ee = 85%

$[\alpha]_D^{25} = -16.0$ (c 1, CH_2Cl_2)

Deepak Baburao Biradar and Han-Mou Gau*

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$C_{18}H_{20}O_2$

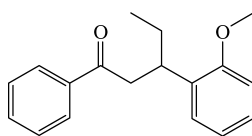
1-(4-Methoxyphenyl)-3-phenyl-pentan-1-one

Ee = 80%

$[\alpha]_D^{25} = -21.65$ (c 1, CH_2Cl_2)

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$C_{18}H_{20}O_2$

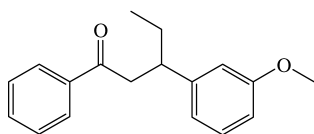
3-(2-Methoxyphenyl)-1-phenyl-pentan-1-one

Ee = 96%

$[\alpha]_D^{25} = -11.7$ (c 1, CH_2Cl_2)

Deepak Baburao Biradar and Han-Mou Gau*

Tetrahedron: Asymmetry 19 (2008) 733



$C_{18}H_{20}O_2$

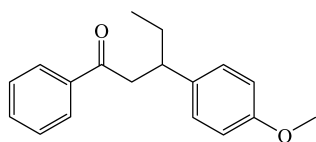
3-(3-Methoxyphenyl)-1-phenyl-pentan-1-one

Ee = 78%

$[\alpha]_D^{25} = -5.3$ (c 1, CH_2Cl_2)

Deepak Baburao Biradar and Han-Mou Gau*

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$C_{18}H_{20}O_2$

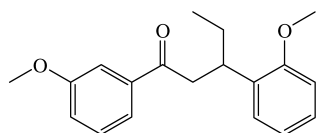
3-(4-Methoxyphenyl)-1-phenyl-pentan-1-one

Ee = 84%

$[\alpha]_D^{25} = -14.3$ (c 1, CH_2Cl_2)

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$C_{19}H_{22}O_3$

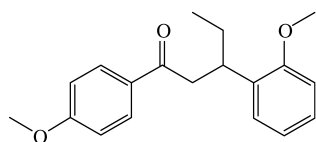
3-(2-Methoxyphenyl)-1-(3-methoxyphenyl)-pentan-1-one

Ee = 97%

$[\alpha]_D^{25} = -9.05$ (c 1, CH_2Cl_2)

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$C_{19}H_{22}O_3$

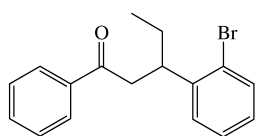
3-(2-Methoxyphenyl)-1-(4-methoxyphenyl)-pentan-1-one

Ee = 93%

$[\alpha]_D^{25} = -10.1$ (c 1, CH_2Cl_2)

Deepak Baburao Biradar and Han-Mou Gau*

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$C_{17}H_{17}BrO$

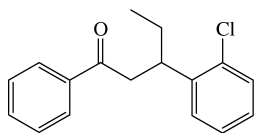
3-(2-Bromophenyl)-1-phenyl-pentan-1-one

Ee = 96%

$[\alpha]_D^{25} = -35.7$ (c 1, CH_2Cl_2)

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$C_{17}H_{17}ClO$

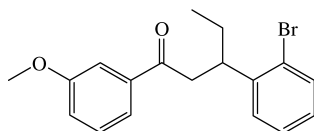
3-(2-Chlorophenyl)-1-phenyl-pentan-1-one

Ee = 96%

$[\alpha]_D^{25} = -32.5$ (c 1, CH_2Cl_2)

Deepak Baburao Biradar and Han-Mou Gau*

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$C_{18}H_{19}BrO_2$

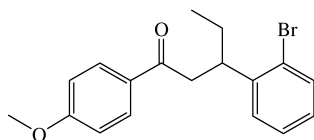
3-(2-Bromophenyl)-1-(3-methoxyphenyl)pentan-1-one

Ee = 95%

$[\alpha]_D^{25} = -33.8$ (c 1, CH_2Cl_2)

Deepak Baburao Biradar and Han-Mou Gau*

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$C_{18}H_{19}BrO_2$

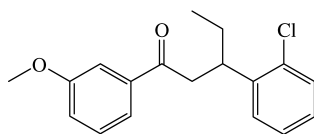
3-(2-Bromophenyl)-1-(4-methoxyphenyl)pentan-1-one

Ee = 94%

$[\alpha]_D^{25} = -39.3$ (c 1, CH_2Cl_2)

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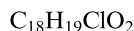
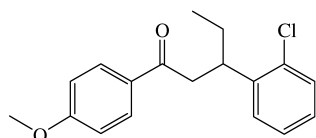


$C_{18}H_{19}ClO_2$

3-(2-Chlorophenyl)-1-(3-methoxyphenyl)pentan-1-one

Ee = 97%

$[\alpha]_D^{25} = -33.0$ (c 1, CH_2Cl_2)



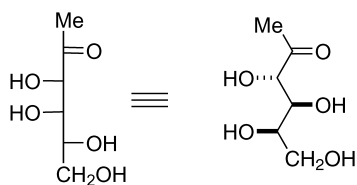
3-(2-Chlorophenyl)-1-(4-methoxyphenyl)pentan-1-one

Ee = 94%

[α]_D²⁵ = -38.6 (c 1, CH₂Cl₂)

Akihide Yoshihara, Satoshi Haraguchi, Pushpakiran Gullapalli, Davendar Rao, Kenji Morimoto, Goro Takata, Nigel Jones, Sarah F. Jenkinson, Mark R. Wormald, Raymond A. Dwek, George W. J. Fleet and Ken Izumori*

Tetrahedron: Asymmetry 19 (2008) 739



1-Deoxy-D-tagatose

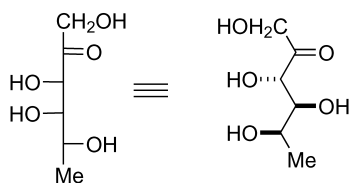
Ee = 100%

[α]_D²⁰ = -14.7 (c 1.0, H₂O)

Source of chirality: L-fucose as starting material

Akihide Yoshihara, Satoshi Haraguchi, Pushpakiran Gullapalli, Davendar Rao, Kenji Morimoto, Goro Takata, Nigel Jones, Sarah F. Jenkinson, Mark R. Wormald, Raymond A. Dwek, George W. J. Fleet and Ken Izumori*

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6-Deoxy-D-tagatose

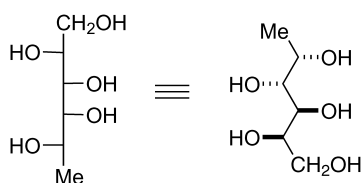
Ee = 100%

[α]_D²⁰ = -2.2 (c 1.0, H₂O)

Source of chirality: D-fucose as starting material

Akihide Yoshihara, Satoshi Haraguchi, Pushpakiran Gullapalli, Davendar Rao, Kenji Morimoto, Goro Takata, Nigel Jones, Sarah F. Jenkinson, Mark R. Wormald, Raymond A. Dwek, George W. J. Fleet and Ken Izumori*

Tetrahedron: Asymmetry 19 (2008) 739



L-Fucitol: 1-deoxy-D-galactitol

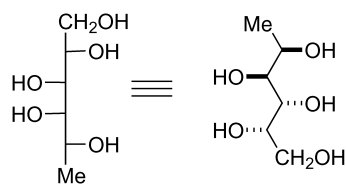
Ee = 100%

[α]_D²⁰ = +1.9 (c 1.0, H₂O)

Source of chirality: L-fucose as starting material

Akihida Yoshihara, Satoshi Haraguchi, Pushpakiran Gullapalli, Davendar Rao, Kenji Morimoto, Goro Takata, Nigel Jones, Sarah F. Jenkinson, Mark R. Wormald, Raymond A. Dwek, George W. J. Fleet and Ken Izumori*

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D-Fucitol: 1-deoxy-L-galactitol

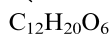
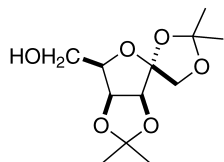
Ee = 100%

$[\alpha]_{\text{D}}^{20} = -1.9$ (c 1.0, H_2O)

Source of chirality: D-fucose as starting material

Akihida Yoshihara, Satoshi Haraguchi, Pushpakiran Gullapalli, Davendar Rao, Kenji Morimoto, Goro Takata, Nigel Jones, Sarah F. Jenkinson, Mark R. Wormald, Raymond A. Dwek, George W. J. Fleet and Ken Izumori*

Tetrahedron: Asymmetry 19 (2008) 739



1,2:3,4-Di-O-isopropylidene-α-D-tagatofuranose

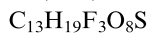
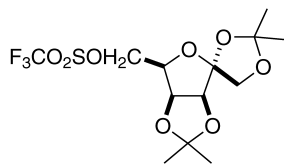
Ee = 100%

$[\alpha]_{\text{D}}^{22} = +66.3$ (c 1.04, CHCl_3)

Source of chirality: D-tagatose as starting material

Akihida Yoshihara, Satoshi Haraguchi, Pushpakiran Gullapalli, Davendar Rao, Kenji Morimoto, Goro Takata, Nigel Jones, Sarah F. Jenkinson, Mark R. Wormald, Raymond A. Dwek, George W. J. Fleet and Ken Izumori*

Tetrahedron: Asymmetry 19 (2008) 739



1,2:3,4-Di-O-isopropylidene-6-O-trifluoromethanesulfonyl-α-D-tagatofuranose

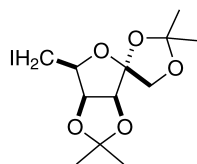
Ee = 100%

$[\alpha]_{\text{D}}^{22} = +43.6$ (c 0.89, CHCl_3)

Source of chirality: D-tagatose as starting material

Akihida Yoshihara, Satoshi Haraguchi, Pushpakiran Gullapalli, Davendar Rao, Kenji Morimoto, Goro Takata, Nigel Jones, Sarah F. Jenkinson, Mark R. Wormald, Raymond A. Dwek, George W. J. Fleet and Ken Izumori*

Tetrahedron: Asymmetry 19 (2008) 739



6-Deoxy-1,2:3,4-di-O-isopropylidene-6-iodo-α-D-tagatofuranose

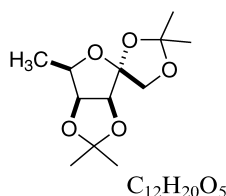
Ee = 100%

$[\alpha]_{\text{D}}^{22} = +44.5$ (c 0.92, CHCl_3)

Source of chirality: D-tagatose as starting material

Akihide Yoshihara, Satoshi Haraguchi, Pushpakiran Gullapalli, Davendar Rao, Kenji Morimoto, Goro Takata, Nigel Jones, Sarah F. Jenkinson, Mark R. Wormald, Raymond A. Dwek, George W. J. Fleet and Ken Izumori*

Tetrahedron: Asymmetry 19 (2008) 739



6-Deoxy-1,2;3,4-di-*O*-isopropylidene- α -D-tagatofuranose

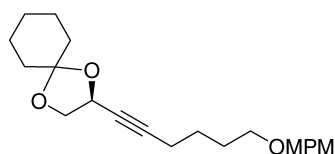
Ee = 100%

$[\alpha]_D^{22} = +64.3$ (*c* 0.96, $CHCl_3$)

Source of chirality: D-tagatose as starting material

S. Chandrasekhar,* B. V. D. Vijaykumar and T. V. Pratap

Tetrahedron: Asymmetry 19 (2008) 746



(2*S*)-2-{6-[(4-Methoxybenzyl)oxy]-1-hexynyl}-1,4-dioxaspiro[4.5]decane

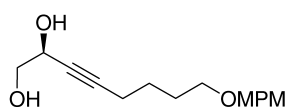
$[\alpha]_D^{25} = +24.5$ (*c* 1.2, $CHCl_3$)

Source of chirality: D-(+)-mannitol

Absolute configuration: (2*S*)

S. Chandrasekhar,* B. V. D. Vijaykumar and T. V. Pratap

Tetrahedron: Asymmetry 19 (2008) 746



(2*S*)-8-[(4-Methoxybenzyl)oxy]-3-octyne-1,2-diol

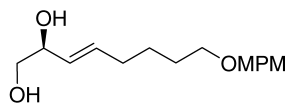
$[\alpha]_D^{25} = +11.0$ (*c* 1.2, $CHCl_3$)

Source of chirality: D-(+)-mannitol

Absolute configuration: (2*S*)

S. Chandrasekhar,* B. V. D. Vijaykumar and T. V. Pratap

Tetrahedron: Asymmetry 19 (2008) 746



(2*S*,3*E*)-8-[(4-Methoxybenzyl)oxy]-3-octene-1,2-diol

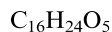
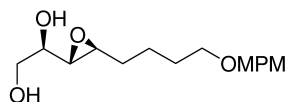
$[\alpha]_D^{25} = +7.2$ (*c* 1.0, $CHCl_3$)

Source of chirality: D-(+)-mannitol

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

S. Chandrasekhar,* B. V. D. Vijaykumar and T. V. Pratap

Tetrahedron: Asymmetry 19 (2008) 746



(1*R*)-1-((2*S*,3*S*)-3-4-((4-Ethylbenzyl)oxy]butyloxiran-2-yl)ethane-1,2-diol

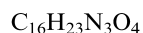
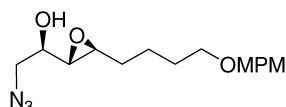
$$[\alpha]_{\text{D}}^{25} = -12.8 \text{ (} c \text{ 1.0, CHCl}_3 \text{)}$$

Source of chirality: D-(+)-mannitol, (+)-diisopropyl L-tartrate

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

S. Chandrasekhar,* B. V. D. Vijaykumar and T. V. Pratap

Tetrahedron: Asymmetry 19 (2008) 746



(*R*)-2-Azido-1-((2*S*,3*S*)-3-(4-(4-methoxybenzyloxy)butyl)oxiran-2-yl)ethanol

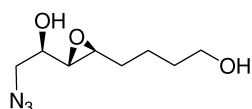
$$[\alpha]_{\text{D}}^{25} = -8.0 \text{ (} c \text{ 0.5, CHCl}_3 \text{)}$$

Source of chirality: D-(+)-mannitol, (+)-diisopropyl L-tartrate

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

S. Chandrasekhar,* B. V. D. Vijaykumar and T. V. Pratap

Tetrahedron: Asymmetry 19 (2008) 746



4-((2*S*,3*S*)-3-((*R*)-2-Azido-1-hydroxyethyl)oxiran-2-yl)butan-1-ol

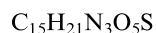
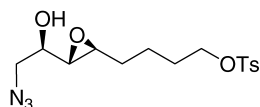
$$[\alpha]_{\text{D}}^{25} = -11.0 \text{ (} c \text{ 0.25, CHCl}_3 \text{)}$$

Source of chirality: D-(+)-mannitol, (+)-diisopropyl L-tartrate

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

S. Chandrasekhar,* B. V. D. Vijaykumar and T. V. Pratap

Tetrahedron: Asymmetry 19 (2008) 746



4-((2*S*,3*S*)-3-((*R*)-2-Azido-1-hydroxyethyl)oxiran-2-yl)butyl 4-methylbenzenesulfonate

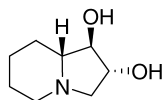
$$[\alpha]_{\text{D}}^{25} = +19.0 \text{ (} c \text{ 1.0, CHCl}_3 \text{)}$$

Source of chirality: D-(+)-mannitol, (+)-diisopropyl L-tartrate

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

S. Chandrasekhar,* B.V.D. Vijaykumar and T.V. Pratap

Tetrahedron: Asymmetry 19 (2008) 746



(1*R*,2*R*,8*aR*)-1,2-Dihydroxyindolizidine, [(–)-lentiginosine]

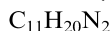
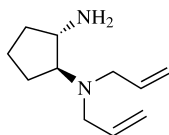
$$[\alpha]_D^{25} = -3.1 \text{ (} c \text{ 0.5 MeOH)}$$

Source of chirality: D-(+)-mannitol, (+)-diisopropyl L-tartrate

Absolute configuration: (1*R*,2*R*,8*aR*)

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

Tetrahedron: Asymmetry 19 (2008) 751



(1*S*,2*S*)-*N,N*-Diallylcyclopentane-1,2-diamine

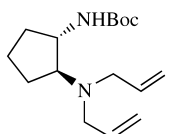
Ee >99%

$$[\alpha]_D^{20} = +72.8 \text{ (} c \text{ 0.5, CHCl}_3)$$

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

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

Tetrahedron: Asymmetry 19 (2008) 751



tert-Butyl (1*S*,2*S*)-*N*-[2-(*N'*,*N'*-diallylamino)cyclopentyl]carbamate

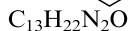
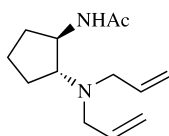
Ee >99%

$$[\alpha]_D^{20} = +23.6 \text{ (} c \text{ 0.5, CHCl}_3)$$

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

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

Tetrahedron: Asymmetry 19 (2008) 751



(1*R*,2*R*)-*N*-[2-(*N'*,*N'*-Diallylamino)cyclopentyl]acetamide

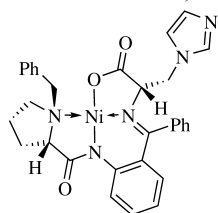
Ee = 97%

$$[\alpha]_D^{20} = -21.6 \text{ (} c \text{ 0.6, CHCl}_3)$$

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

Yuri N. Belokon,* Andrey V. Grachev, Victor I. Maleev,
Victor N. Khrustalev, Alexander S. Peregudov and Michael North

Tetrahedron: Asymmetry 19 (2008) 756



$C_{31}H_{29}N_5NiO_3$

[(*S*)-2-(2-[(2*S*,1*R_N*)-1-Benzylpyrrolidine-2-carboxamido]phenyl)(phenyl)methyleneamino)-3-(1*H*-imidazol-1-yl)propanoato-*N,N',N'',O*] nickel(II)

Ee >99%

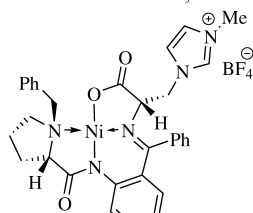
$[\alpha]_D^{25} = +2356$ (*c* 0.050, MeOH)

Source of chirality: asymmetric synthesis

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

Yuri N. Belokon,* Andrey V. Grachev, Victor I. Maleev,
Victor N. Khrustalev, Alexander S. Peregudov and Michael North

Tetrahedron: Asymmetry 19 (2008) 756



$C_{32}H_{32}BF_4N_5NiO_3$

({1-[(*S*)-2-(2-[(2*S*,1*R_N*)-1-Benzylpyrrolidine-2-carboxamido]phenyl)(phenyl)methyleneamino)-2-carboxylato-*N,N',N'',O*]-nickel(II)}-ethyl)-3-methyl-1*H*-imidazol-3-ium tetrafluoroborate

Ee >99%

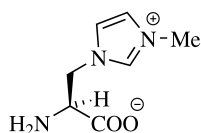
$[\alpha]_D^{25} = +2386$ (*c* 0.056, MeOH)

Source of chirality: asymmetric synthesis

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

Yuri N. Belokon,* Andrey V. Grachev, Victor I. Maleev,
Victor N. Khrustalev, Alexander S. Peregudov and Michael North

Tetrahedron: Asymmetry 19 (2008) 756



$C_7H_{11}N_3O_2$

(*S*)-2-Amino-3-(3-methyl-1*H*-imidazol-3-ium-1-yl)propanoate

Ee >99%

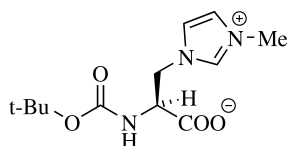
$[\alpha]_D^{25} = -18.4$ (*c* 1.4, H₂O)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Yuri N. Belokon,* Andrey V. Grachev, Victor I. Maleev,
Victor N. Khrustalev, Alexander S. Peregudov and Michael North

Tetrahedron: Asymmetry 19 (2008) 756



$C_{12}H_{19}N_3O_4$

(*S*)-2-(*tert*-Butoxycarbonylamino)-3-(3-methyl-1*H*-imidazol-3-ium-1-yl)propanoate

Ee >99%

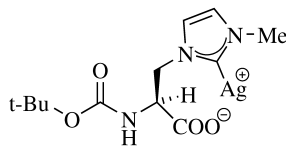
$[\alpha]_D^{25} = +111.4$ (*c* 1.02, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Yuri N. Belokon,* Andrey V. Grachev, Victor I. Maleev,
Victor N. Khrustalev, Alexander S. Peregudov and Michael North

Tetrahedron: Asymmetry 19 (2008) 756



(*S*)-1-(2-(*tert*-Butoxycarbonylamino)-2-carboxyatoethyl)-3-methyl-1*H*-imidazol-2-ylidene)silver(I)

Ee >99%

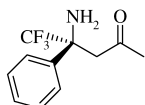
$[\alpha]_D^{25} = +60.0$ (*c* 1.02, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Volodymyr A. Sukach, Nataliya M. Golovach, Volodymyr V.
Pirozhenko, Eduard B. Rusanov and Mykhaylo V. Vovk*

Tetrahedron: Asymmetry 19 (2008) 761



4-Amino-4-phenyl-5,5,5-trifluoro-2-pentanone

Ee = 80%

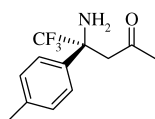
$[\alpha]_D^{20} = +26.6$ (*c* 1.80, MeOH)

Chiral source: (*S*)-proline

Absolute configuration: (*S*)

Volodymyr A. Sukach, Nataliya M. Golovach, Volodymyr V.
Pirozhenko, Eduard B. Rusanov and Mykhaylo V. Vovk*

Tetrahedron: Asymmetry 19 (2008) 761



4-Amino-4-(4-methylphenyl)-5,5,5-trifluoro-2-pentanone

Ee = 74%

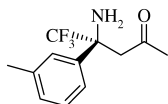
$[\alpha]_D^{20} = +15.4$ (*c* 0.75, MeOH)

Chiral source: (*S*)-proline

Absolute configuration: (*S*)

Volodymyr A. Sukach, Nataliya M. Golovach, Volodymyr V.
Pirozhenko, Eduard B. Rusanov and Mykhaylo V. Vovk*

Tetrahedron: Asymmetry 19 (2008) 761



4-Amino-4-(3-methylphenyl)-5,5,5-trifluoro-2-pentanone

Ee = 92%

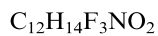
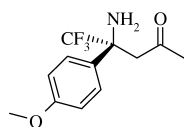
$[\alpha]_D^{20} = +24.8$ (*c* 0.81, MeOH)

Chiral source: (*S*)-proline

Absolute configuration: (*S*)

Volodymyr A. Sukach, Nataliya M. Golovach, Volodymyr V. Pirozhenko, Eduard B. Rusanov and Mykhaylo V. Vovk*

Tetrahedron: Asymmetry 19 (2008) 761



4-Amino-4-(4-methoxyphenyl)-5,5,5-trifluoro-2-pentanone

Ee = 78%

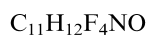
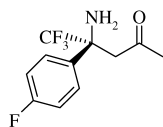
$[\alpha]_D^{20} = +10.3$ (c 0.39, MeOH)

Chiral source: (S)-proline

Absolute configuration: (S)

Volodymyr A. Sukach, Nataliya M. Golovach, Volodymyr V. Pirozhenko, Eduard B. Rusanov and Mykhaylo V. Vovk*

Tetrahedron: Asymmetry 19 (2008) 761



4-Amino-4-(4-fluorophenyl)-5,5,5-trifluoro-2-pentanone

Ee = 83%

$[\alpha]_D^{20} = +30.1$ (c 0.63, MeOH)

Chiral source: (S)-proline

Absolute configuration: (S)