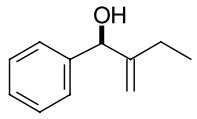
Gelson J. Andrade Conceição, Paulo J. S. Moran and J. Augusto R. Rodrigues*

*Tetrahedron:* Asymmetry *14 (2003) 43*




$C_{11}H_{14}O$

(*S*)-2-Ethyl-1-phenylprop-2-en-1-ol

E.e. >99%

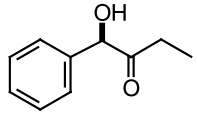
$[\alpha]_D^{20} = -40$ (*c* 2, $CHCl_3$)

Source of chirality: biocatalytic reduction

Absolute configuration: *S*

Gelson J. Andrade Conceição, Paulo J. S. Moran and J. Augusto R. Rodrigues*

*Tetrahedron:* Asymmetry *14 (2003) 43*




$C_{10}H_{12}O_2$

(*R*)-1-Hydroxy-1-phenylbutan-2-one

E.e. = 98%

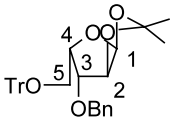
$[\alpha]_D^{20} = -325$ (*c* 2, $CHCl_3$)

Source of chirality: biocatalytic reduction

Absolute configuration: *R*

Aymeric Bordier, Philippe Compain, Olivier R. Martin,* Kyoko Ikeda and Naoki Asano

*Tetrahedron:* Asymmetry *14 (2003) 47*




$C_{34}H_{34}O_5$

3-*O*-Benzyl-1,2-*O*-isopropylidene-5-*O*-triphenylmethyl-α-L-xylofuranose

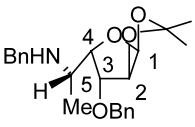
$[\alpha]_D = +39$ (*c* 1, $CHCl_3$)

Source of chirality: L-xylose

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

Aymeric Bordier, Philippe Compain, Olivier R. Martin,* Kyoko Ikeda and Naoki Asano

*Tetrahedron:* Asymmetry *14 (2003) 47*




$C_{23}H_{29}NO_4$

3-*O*-Benzyl-5-benzylamino-5,6-dideoxy-1,2-*O*-isopropylidene-α-L-glucofuranose

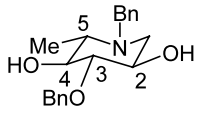
$[\alpha]_D = +55$ (*c* 1, $CHCl_3$)

Source of chirality: L-xylose and asymmetric nucleophilic addition

Absolute configuration: 1*S*,2*S*,3*R*,4*S*,5*S*

Aymeric Bordier, Philippe Compain, Olivier R. Martin,* Kyoko Ikeda and Naoki Asano

*Tetrahedron:* Asymmetry *14 (2003) 47*




$C_{20}H_{25}NO_3$

*N*-Benzyl-3-*O*-benzyl-1,5-imino-1,5,6-trideoxy-L-glucitol

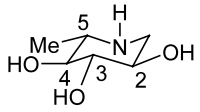
$[\alpha]_D = +55$ (*c* 1, $CHCl_3$)

Source of chirality: L-xylose and asymmetric nucleophilic addition

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

Aymeric Bordier, Philippe Compain, Olivier R. Martin,* Kyoko Ikeda and Naoki Asano

*Tetrahedron:* Asymmetry *14 (2003) 47*




$C_6H_{13}NO_3$

1,5-Imino-1,5,6-trideoxy-L-glucitol

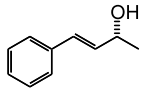
$[\alpha]_D = -12$ (*c* 1.6, MeOH)

Source of chirality: L-xylose and asymmetric nucleophilic addition

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

Ashraf Ghanem and Volker Schurig*

*Tetrahedron:* Asymmetry *14 (2003) 57*




$C_{10}H_{12}O$

(*R*)-*trans*-4-Phenyl-3-butene-2-ol

Ee >99%

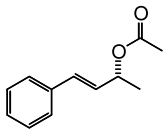
$[\alpha]_D^{20} = +19.9$ (*c* 1, $CH_2Cl_2$)

Source of chirality: lipase-catalysed enantioselective acylation

Absolute configuration: 2*R*

Ashraf Ghanem and Volker Schurig*

*Tetrahedron:* Asymmetry *14 (2003) 47*




$C_{12}H_{14}O_2$

(*R*)-*trans*-4-Phenyl-3-butene-2 acetate

Ee >99%

$[\alpha]_D^{20} = +74.2$ (*c* 1, $CH_2Cl_2$)

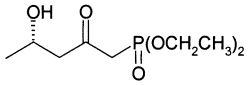
Source of chirality: lipase-catalysed enantioselective hydrolysis

Absolute configuration: 2*R*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*

$[\alpha]_D^{18} = +33.2$ ($c$ 1.2, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: 4*S*

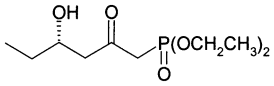



$C_9H_{19}O_5P$
(4*S*)-Diethyl 4-hydroxy-2-oxo-pentylphosphonate

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*

$[\alpha]_D^{18} = +40$ ($c$ 0.75, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: 4*S*

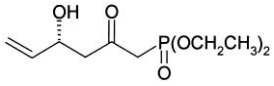



$C_{10}H_{21}O_5P$
(4*S*)-4-Diethyl 4-hydroxy-2-oxo-hexylphosphonate

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*

$[\alpha]_D^{18} = +17.5$ ($c$ 0.85, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: 4*R*

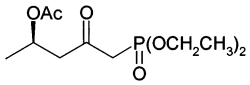



$C_{10}H_{19}O_5P$
(4*R*)-Diethyl 4-hydroxy-2-oxo-5-hexenylphosphonate

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*

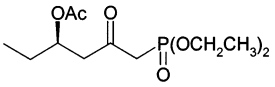
$[\alpha]_D^{18} = +4.0$ ($c$ 0.6, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: 4*R*




$C_{11}H_{21}O_6P$
(4*R*)-Diethyl 4-acetyloxy-2-oxo-pentylphosphonate

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*




$C_{12}H_{23}O_6P$

(4*R*)-Diethyl 4-acetyloxy-2-oxo-hexylphosphonate

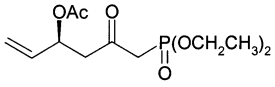
$[\alpha]_D^{18} = +11.5$ (*c* 0.6, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 4*R*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*




$C_{12}H_{21}O_6P$

(4*S*)-Diethyl 4-acetyloxy-2-oxo-5-hexenylphosphonate

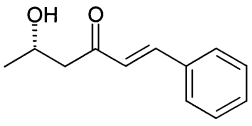
$[\alpha]_D^{18} = -1.3$ (*c* 0.85, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 4*S*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*




$C_{12}H_{14}O_2$

(5*S*,1*E*)-5-Hydroxy-1-phenyl-1-hexen-3-one

E.e. = 99.1%

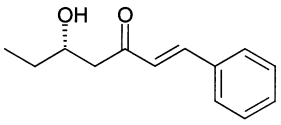
$[\alpha]_D^{16} = +41$ (*c* 0.65, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 5*S*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*




$C_{13}H_{16}O_2$

(5*S*,1*E*)-5-Hydroxy-1-phenyl-1-hepten-3-one

E.e. = 95%

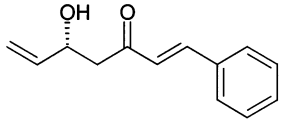
$[\alpha]_D^{25} = +50.7$ (*c* 1.65, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 5*S*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*



$C_{13}H_{14}O_2$

(5*R*,1*E*)-5-Hydroxy-1-phenyl-1,6-heptadien-3-one

E.e. = 95%

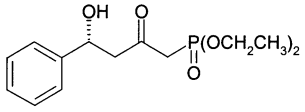
$[\alpha]_D^{16} = +33$ (*c* 0.25, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 5*R*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*



$C_{14}H_{21}O_5P$

(4*R*)-Diethyl 4-hydroxy-2-oxo-4-phenylbutylphosphonate

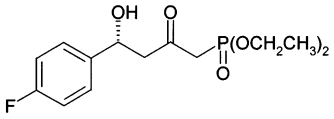
$[\alpha]_D^{27} = +41.6$ (*c* 1.8, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 4*R*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*



$C_{14}H_{20}FO_5P$

(4*R*)-Diethyl 4-hydroxy-2-oxo-4-(4-fluorophenyl)butylphosphonate

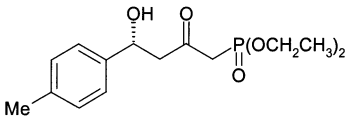
$[\alpha]_D^{27} = +42.7$ (*c* 1.55, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 4*R*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*



$C_{15}H_{23}O_5P$

(4*R*)-Diethyl 4-hydroxy-2-oxo-4-(4-methylphenyl)butylphosphonate

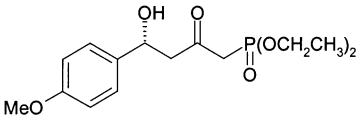
$[\alpha]_D^{27} = +38.9$ (*c* 0.9, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 4*R*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*




$C_{15}H_{23}O_6P$

(4*R*)-Diethyl 4-hydroxy-2-oxo-4-(4-methoxylphenyl)butylphosphonate

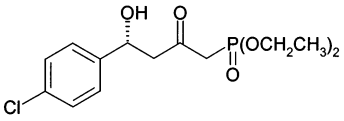
$[\alpha]_D^{27} = +40.1$ (*c* 1.85, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 4*R*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*




$C_{14}H_{20}ClO_5P$

(4*R*)-Diethyl 4-hydroxy-2-oxo-4-(4-chlorophenyl)butylphosphonate

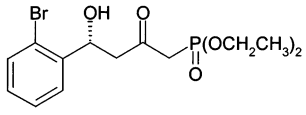
$[\alpha]_D^{27} = +41.2$ (*c* 1.95, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 4*R*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*




$C_{14}H_{20}BrO_5P$

(4*R*)-Diethyl 4-hydroxy-2-oxo-4-(2-bromophenyl)butylphosphonate

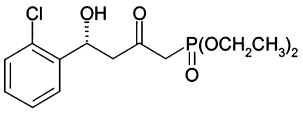
$[\alpha]_D^{25} = +69.2$ (*c* 1.25, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 4*R*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*




$C_{14}H_{20}ClO_5P$

(4*R*)-Diethyl 4-hydroxy-2-oxo-4-(2-chlorophenyl)butylphosphonate

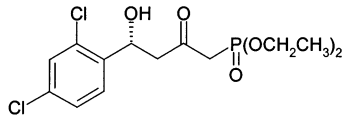
$[\alpha]_D^{25} = +74.7$ (*c* 1.5, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 4*R*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*




$C_{14}H_{19}Cl_2O_5P$

(4*R*)-Diethyl 4-hydroxy-2-oxo-4-(2,4-dichlorophenyl)butylphosphonate

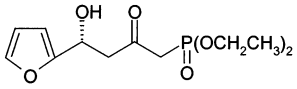
$[\alpha]_D^{27} = +68.7$ (*c* 0.7, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 4*R*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*




$C_{12}H_{19}O_5P$

(4*R*)-Diethyl 4-hydroxy-2-oxo-4-(2-furyl)butylphosphonate

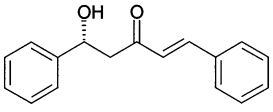
$[\alpha]_D^{27} = +28.1$ (*c* 1.45, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 4*R*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*




$C_{17}H_{16}O_2$

(5*R*,1*E*)-5-Hydroxy-1,5-diphenyl-1-penten-3-one

E.e. = 98.7%

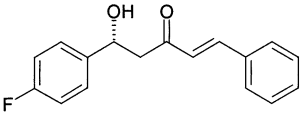
$[\alpha]_D^{27} = +67.1$ (*c* 1.05, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 5*R*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*




$C_{17}H_{15}FO_2$

(5*R*,1*E*)-5-Hydroxy-5-(4-fluorophenyl)-1-phenyl-1-penten-3-one

E.e. = 95.9%

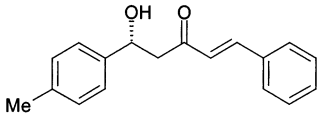
$[\alpha]_D^{27} = +59.9$ (*c* 1.1, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 5*R*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*




$C_{18}H_{18}O_2$

(5*R*,1*E*)-5-Hydroxy-5-(4-methylphenyl)-1-phenyl-1-penten-3-one

E.e. = 100%

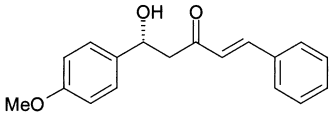
$[\alpha]_D^{27} = +79.6$ (*c* 0.5, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 5*R*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*




$C_{18}H_{18}O_3$

(5*R*,1*E*)-5-Hydroxy-5-(4-methoxyphenyl)-1-phenyl-1-penten-3-one

E.e. = 96.8%

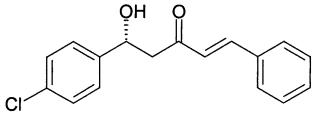
$[\alpha]_D^{27} = +51.0$ (*c* 0.95, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 5*R*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*




$C_{17}H_{15}ClO_2$

(5*R*,1*E*)-5-Hydroxy-5-(4-chlorophenyl)-1-phenyl-1-penten-3-one

E.e. = 99.4%

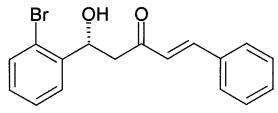
$[\alpha]_D^{27} = +58.6$ (*c* 1.3, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 5*R*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*




$C_{17}H_{15}BrO_2$

(5*R*,1*E*)-5-Hydroxy-5-(2-bromophenyl)-1-phenyl-1-penten-3-one

E.e. = 98.0%

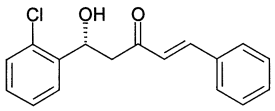
$[\alpha]_D^{27} = +121.2$ (*c* 0.95, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 5*R*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*




$C_{17}H_{15}ClO_2$

(5*R*,1*E*)-5-Hydroxy-5-(2-chlorophenyl)-1-phenyl-1-penten-3-one

E.e. = 97.0%

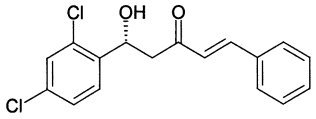
$[\alpha]_D^{27} = +68.9$ (*c* 0.35, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 5*R*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*




$C_{17}H_{14}Cl_2O_2$

(5*R*,1*E*)-5-Hydroxy-5-(2,4-dichlorophenyl)-1-phenyl-1-penten-3-one

E.e. = 97.5%

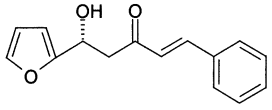
$[\alpha]_D^{27} = +92.0$ (*c* 1.0, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 5*R*

Yonghui Zhang, Chengfu Xu, Jinfeng Li and Chengye Yuan*

*Tetrahedron:* Asymmetry *14 (2003) 63*




$C_{15}H_{14}O_3$

(5*R*,1*E*)-5-Hydroxy-5-(2-furyl)-1-phenyl-1-penten-3-one

E.e. = 85.9%

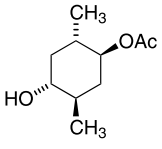
$[\alpha]_D^{27} = +33.7$ (*c* 0.7, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: 5*R*

C. Böhm, W. F. Austin and D. Trauner*

*Tetrahedron:* Asymmetry *14 (2003) 71*




$C_{10}H_{18}O_3$

(+)-(1*R*,2*R*,4*S*,5*S*)-4-Acetoxy-2,5-dimethyl-1-cyclohexanol

E.e. >99.5%

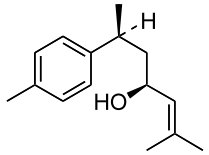
$[\alpha]_D = +48.0$ (*c* 0.42, $CH_2Cl_2$)

Source of chirality: enzymatic desymmetrization of centrosymmetric diacetate using pig liver esterase (PLE)

Absolute configuration: 1*R*,2*R*,4*S*,5*S*

Anpai Li, Guoren Yue, Yang Li, Xinfu Pan* and Teng-Kuei Yang

*Tetrahedron:* Asymmetry *14 (2003) 75*




$C_{15}H_{22}O$

(7*S*,9*S*)-1-*epi*-Bisacumol

D.e. 92%

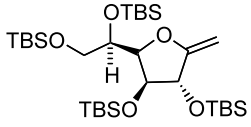
$[\alpha]_D = +9.4$, (*c* 9.7, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: 7*S*,9*S*

Paul V. Murphy,* Ciaran McDonnell, Ludger Hämig, Duncan E. Paterson and Richard J. K. Taylor

*Tetrahedron:* Asymmetry *14 (2003) 79*




$C_{31}H_{68}O_5Si_4$

2,5-Anhydro-3,4,6,7-tetra-*O*-(*tert*-butyldimethysilyl)-1-deoxy-D-gluco-hept-1-enitol

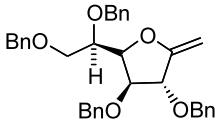
$[\alpha]_D = +14.3$ (*c* 1.5, $CHCl_3$)

Source of chirality: D-gluconolactone starting material

Absolute configuration: D-gluco

Paul V. Murphy,* Ciaran McDonnell, Ludger Hämig, Duncan E. Paterson and Richard J. K. Taylor

*Tetrahedron:* Asymmetry *14 (2003) 79*




$C_{35}H_{36}O_5$

2,5-Anhydro-3,4,6,7-tetra-*O*-benzyl-1-deoxy-D-gluco-hept-1-enitol

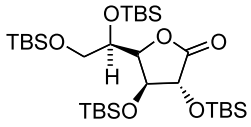
$[\alpha]_D = +17.0$ (*c* 1.0, $CHCl_3$)

Source of chirality: D-gluconolactone starting material

Absolute configuration: D-gluco

Paul V. Murphy,* Ciaran McDonnell, Ludger Hämig, Duncan E. Paterson and Richard J. K. Taylor

*Tetrahedron:* Asymmetry *14 (2003) 79*




$C_{30}H_{66}O_6Si_4$

2,3,5,6-Tetra-*O*-(*tert*-butyldimethysilyl)-D-glucono-1,4-lactone

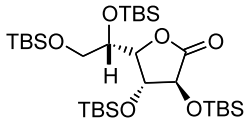
$[\alpha]_D = +36.1$ (*c* 1.0, $CHCl_3$)

Source of chirality: D-gluconolactone starting material

Absolute configuration: D-gluco

Paul V. Murphy,* Ciaran McDonnell, Ludger Hämig, Duncan E. Paterson and Richard J. K. Taylor

*Tetrahedron:* Asymmetry *14 (2003) 79*




$C_{30}H_{66}O_6Si_4$

2,3,5,6-Tetra-*O*-(*tert*-butyldimethysilyl)-L-glucono-1,4-lactone

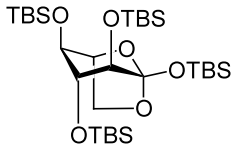
$[\alpha]_D = -36.1$ (*c* 1.0, $CHCl_3$)

Source of chirality: L-gluconolactone starting material

Absolute configuration: L-gluco

Paul V. Murphy,* Ciaran McDonnell, Ludger Hämig, Duncan E. Paterson and Richard J. K. Taylor

*Tetrahedron:* Asymmetry *14 (2003) 79*




$C_{30}H_{66}O_6Si_4$

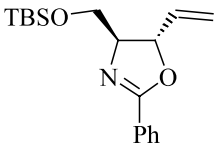
1-(*tert*-Butyldimethylsilyloxy)-2,3,4-tri-*O*-(*tert*-butyldimethylsilyl)-1,6-anhydro-L-glucopyranose

$[\alpha]_D = +15.4$ (*c* 0.9, $CHCl_3$)

Source of chirality: L-gluconolactone starting material

Yiu-Suk Lee, Yong-Ho Shin, Yong-Hyun Kim, Kee-Young Lee, Chang-Young Oh, Sung-Jae Pyun, Hyun-Ju Park, Jin-Hyun Jeong and Won-Hun Ham*

*Tetrahedron:* Asymmetry *14 (2003) 87*




$C_{18}H_{27}NO_2Si$

(4*S*,*trans*)-4,5-Dihydro-4-(*tert*-butyl-dimethylsilanyloxymethyl)-2-phenyloxazoline

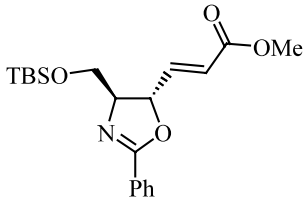
$[\alpha]_D^{25}$ −3.7 (*c* 1.0, $CHCl_3$)

Source of chirality: stereoselective intramolecular cyclization

Absolute configuration: 4*S*,*trans*

Yiu-Suk Lee, Yong-Ho Shin, Yong-Hyun Kim, Kee-Young Lee, Chang-Young Oh, Sung-Jae Pyun, Hyun-Ju Park, Jin-Hyun Jeong and Won-Hun Ham*

*Tetrahedron:* Asymmetry *14 (2003) 87*




$C_{20}H_{29}NO_4Si$

(2*E*)-3-((4*S*,*trans*)-4,5-Dihydro-4-(*tert*-butyl-dimethylsilanyloxymethyl)-2-phenyloxazol-5-yl)-acrylic acid methyl ester

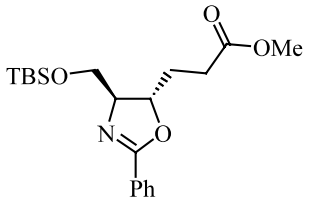
$[\alpha]_D^{24}$ +53.9 (*c* 1.0, $CHCl_3$)

Source of chirality: stereoselective intramolecular cyclization

Absolute configuration: 2*E*,4*S*,*trans*

Yiu-Suk Lee, Yong-Ho Shin, Yong-Hyun Kim, Kee-Young Lee, Chang-Young Oh, Sung-Jae Pyun, Hyun-Ju Park, Jin-Hyun Jeong and Won-Hun Ham*

*Tetrahedron:* Asymmetry *14 (2003) 87*




$C_{20}H_{31}NO_4Si$

$[\alpha]_D^{24}$ −15.7 (*c* 1.0, $CHCl_3$)

Source of chirality: stereoselective intramolecular cyclization

Absolute configuration: 4*S*,*trans*

3-((4*S*,*trans*)-4,5-Dihydro-4-(*tert*-butyl-dimethylsilanyloxymethyl)-2-phenyloxazol-5-yl)-propionic acid methyl ester

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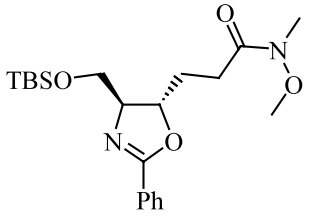
Yiu-Suk Lee, Yong-Ho Shin, Yong-Hyun Kim, Kee-Young Lee, Chang-Young Oh, Sung-Jae Pyun, Hyun-Ju Park, Jin-Hyun Jeong and Won-Hun Ham*

*Tetrahedron:* Asymmetry *14 (2003) 87*




$C_{21}H_{34}N_2O_4Si$

$[\alpha]_D^{24}$ −32.2 (*c* 1.0, $CHCl_3$)

Source of chirality: stereoselective intramolecular cyclization

Absolute configuration: 4*S*,*trans*

3-((4*S*,*trans*)-4,5-Dihydro-4-(*tert*-butyl-dimethylsilanyloxymethyl)-2-phenyloxazol-5-yl)-*N*-methoxy-*N*-methyl-propionamide

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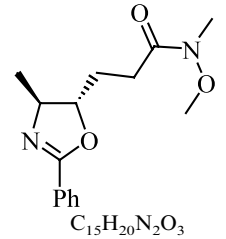
Yiu-Suk Lee, Yong-Ho Shin, Yong-Hyun Kim, Kee-Young Lee, Chang-Young Oh, Sung-Jae Pyun, Hyun-Ju Park, Jin-Hyun Jeong and Won-Hun Ham*

*Tetrahedron:* Asymmetry *14 (2003) 87*




$C_{15}H_{20}N_2O_3$

$[\alpha]_D^{25}$ −53.9 (*c* 1.0, $CHCl_3$)

Source of chirality: stereoselective intramolecular cyclization

Absolute configuration: 4*S*,*trans*

3-((4*S*,*trans*)-4,5-Dihydro-4-methyl-2-phenyloxazol-5-yl)-*N*-methoxy-*N*-methyl-propionamide

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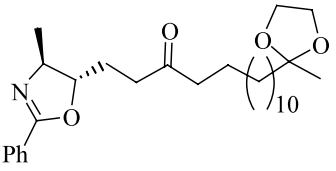
Yiu-Suk Lee, Yong-Ho Shin, Yong-Hyun Kim, Kee-Young Lee, Chang-Young Oh, Sung-Jae Pyun, Hyun-Ju Park, Jin-Hyun Jeong and Won-Hun Ham*

*Tetrahedron:* Asymmetry *14 (2003) 87*




$C_{29}H_{45}NO_4$

$[\alpha]_D^{23}$ −21.0 (*c* 1.0, $CHCl_3$)

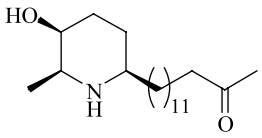
Source of chirality: stereoselective intramolecular cyclization

Absolute configuration: 4*S*,*trans*

3-((4*S*,*trans*)-4,5-Dihydro-4-methyl-2-phenyloxazol-5-yl)-heptadecan-3-one-16-ethylenacetal

Yiu-Suk Lee, Yong-Ho Shin, Yong-Hyun Kim, Kee-Young Lee, Chang-Young Oh, Sung-Jae Pyun, Hyun-Ju Park, Jin-Hyun Jeong and Won-Hun Ham*

*Tetrahedron:* Asymmetry *14 (2003) 87*



$C_{20}H_{39}NO_2$

(+)-Spectaline

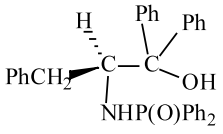
$[\alpha]_D^{26}$ +8.8 (*c* 1.3, $CHCl_3$)

Source of chirality: stereoselective intramolecular reductive amination

Absolute configuration: 2*S*,3*S*,6*R*

Kangying Li, Zhenghong Zhou, Lixin Wang, Qifa Chen, Guofeng Zhao, Qilin Zhou and Chuchi Tang*

*Tetrahedron:* Asymmetry *14 (2003) 95*



(2*S*)-1,1,3-Triphenyl-2-(*N*-diphenylphosphinyl)amino-1-propanol

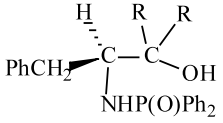
Mp = 223 ~ 225°C

$[\alpha]_D^{20} = -31.1$ (*c* 1.0, $CHCl_3$)

Absolute configuration: 2*S*

Kangying Li, Zhenghong Zhou, Lixin Wang, Qifa Chen, Guofeng Zhao, Qilin Zhou and Chuchi Tang*

*Tetrahedron:* Asymmetry *14 (2003) 95*



(2*S*)-1,1-Di(4-fluorophenyl)-2-(*N*-diphenylphosphinyl)amino-3-phenyl-1-propanol

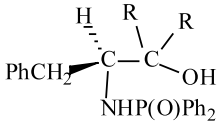
Mp = 233 ~ 236°C

$[\alpha]_D^{20} = -28.7$ (*c* 1.0, $CHCl_3$)

Absolute configuration: 2*S*

Kangying Li, Zhenghong Zhou, Lixin Wang, Qifa Chen, Guofeng Zhao, Qilin Zhou and Chuchi Tang*

*Tetrahedron:* Asymmetry *14 (2003) 95*



(2*S*)-1,1-Di(4-methylphenyl)-2-(*N*-diphenylphosphinyl)amino-3-phenyl-1-propanol

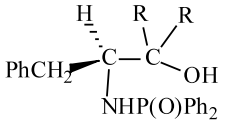
Mp = 218 ~ 220°C

$[\alpha]_D^{20} = -22.5$ (*c* 0.4, $CHCl_3$)

Absolute configuration: 2*S*

Kangying Li, Zhenghong Zhou, Lixin Wang, Qifa Chen, Guofeng Zhao, Qilin Zhou and Chuchi Tang*

*Tetrahedron:* Asymmetry *14 (2003) 95*

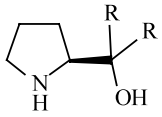



(2*S*)-3-Ethyl-2-(*N*-diphenylphosphinylamino)-1-phenyl-3-pentanol

Mp = 147 ~ 149°C
$[\alpha]_D^{20} = -69.5$ (*c* 1.0, $CH_2Cl_2$)
Absolute configuration: 2*S*

Kangying Li, Zhenghong Zhou, Lixin Wang, Qifa Chen, Guofeng Zhao, Qilin Zhou and Chuchi Tang*

*Tetrahedron:* Asymmetry *14 (2003) 95*

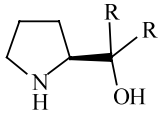



(2*S*)-2-[Di-(4-fluorophenyl)hydroxymethyl]pyrrolidine

Mp = 68 ~ 70°C
$[\alpha]_D^{20} = -57.0$ (*c* 0.73, $CH_2Cl_2$)
Absolute configuration: 2*S*

Kangying Li, Zhenghong Zhou, Lixin Wang, Qifa Chen, Guofeng Zhao, Qilin Zhou and Chuchi Tang*

*Tetrahedron:* Asymmetry *14 (2003) 95*

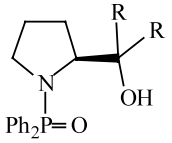



(2*S*)-2-[Di-(4-methylphenyl)hydroxymethyl]pyrrolidine

Mp = 93 ~ 94°C
$[\alpha]_D^{20} = -58.0$ (*c* 1.0, $CHCl_3$)
Absolute configuration: 2*S*

Kangying Li, Zhenghong Zhou, Lixin Wang, Qifa Chen, Guofeng Zhao, Qilin Zhou and Chuchi Tang*

*Tetrahedron:* Asymmetry *14 (2003) 95*

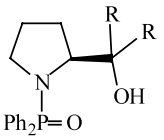



*N*-Diphenylphosphinyl-(2*S*)-2-[di(4-fluorophenyl)hydroxymethyl]pyrrolidine

Mp = 158 ~ 160°C
$[\alpha]_D^{20} = -44.4$ (*c* 1.1, $CH_2Cl_2$)
Absolute configuration: 2*S*

Kangying Li, Zhenghong Zhou, Lixin Wang, Qifa Chen, Guofeng Zhao, Qilin Zhou and Chuchi Tang*

*Tetrahedron:* Asymmetry *14 (2003) 95*

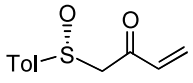



*N*-Diphenylphosphinyl-(2*S*)-2-[di(4-methylphenyl)hydroxymethyl]pyrrolidine

Mp = 158 ~ 160°C
$[\alpha]_D^{20} = -38.2$ (*c* 1.1, $CHCl_3$)
Absolute configuration: 2*S*

Sadagopan Raghavan* and S. C. Joseph

*Tetrahedron:* Asymmetry *14 (2003) 101*

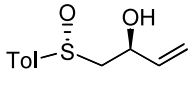



$C_{11}H_{12}O_2S$
1($R_S$)-(4-Methylphenylsulfinyl)-3-buten-2-ol

Ee = 100%
$[\alpha]_D^{24} = +184.6$ (*c* 1, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: $1R_S$

Sadagopan Raghavan* and S. C. Joseph

*Tetrahedron:* Asymmetry *14 (2003) 101*

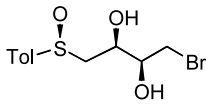



$C_{11}H_{14}O_2S$
1($R_S$)-(4-Methylphenylsulfinyl)-(2*S*)-3-buten-2-ol

De >95%
$[\alpha]_D^{24} = +134.0$ (*c* 1, acetone)
Source of chirality: asymmetric synthesis
Absolute configuration: $1R_S,2S$

Sadagopan Raghavan* and S. C. Joseph

*Tetrahedron:* Asymmetry *14 (2003) 101*

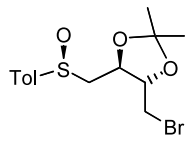



$C_{11}H_{15}BrO_3S$
1-Bromo-4($S_S$)-(4-methylphenylsulfinyl)-(2*S*,3*S*)-3-butane-2,3-diol

De >95%
$[\alpha]_D^{24} = -208.2$ (*c* 0.5, MeOH)
Source of chirality: asymmetric synthesis
Absolute configuration: $4S_S,2S,3S$

Sadagopan Raghavan* and S. C. Joseph

*Tetrahedron:* Asymmetry *14 (2003) 101*




De >95%

$[\alpha]_D^{24} = -202.3$ (*c* 1, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: $S_S$,4*S*,5*S*

$C_{14}H_{19}BrO_3S$

4-Bromomethyl-2,2-dimethyl-5-(4-methyl-(*S*)-phenylsulfinylmethyl)-(4*S*,5*S*)-1,3-dioxolane

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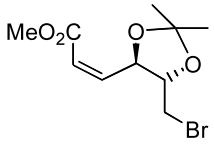
Sadagopan Raghavan* and S. C. Joseph

*Tetrahedron:* Asymmetry *14 (2003) 101*




Ee >95%

$[\alpha]_D^{24} = +118.5$ (*c* 0.14, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

$C_{10}H_{16}BrO_4$

Methyl 3-[5-bromomethyl-2,2-dimethyl-(4*R*,5*S*)-1,3-dioxolan-4-yl]-(*Z*)-2-propenoate

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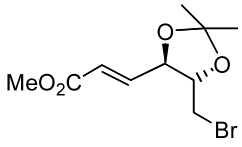
Sadagopan Raghavan* and S. C. Joseph

*Tetrahedron:* Asymmetry *14 (2003) 101*




Ee >95%

$[\alpha]_D^{24} = -9.2$ (*c* 0.42, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

$C_{10}H_{16}BrO_4$

Methyl 3-[5-bromomethyl-2,2-dimethyl-(4*R*,5*S*)-1,3-dioxolan-4-yl]-(*E*)-2-propenoate

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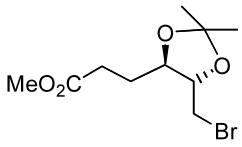
Sadagopan Raghavan* and S. C. Joseph

*Tetrahedron:* Asymmetry *14 (2003) 101*




Ee >95%

$[\alpha]_D^{24} = -15.7$ (*c* 1.38, $CHCl_3$)

Source of chirality: asymmetric synthesis

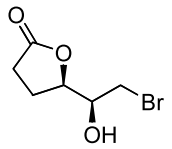
Absolute configuration: 4*R*,5*S*

$C_{10}H_{18}BrO_4$

Methyl 3-[5-bromomethyl-2,2-dimethyl-(4*R*,5*S*)-1,3-dioxolan-4-yl]propanoate

Sadagopan Raghavan* and S. C. Joseph

*Tetrahedron:* Asymmetry *14 (2003) 101*



$C_6H_9BrO_3$

5-[2-Bromo-1-hydroxy-(1*S*)-ethyl]-(5*R*)-2*H*,3*H*,4*H*-2-furanone

Ee >95%

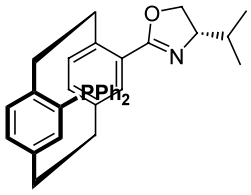
$[\alpha]_D^{24} = -35.6$ (*c* 0.19, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: 1*S*,5*R*

Xun-Wei Wu, Ke Yuan, Wei Sun, Ming-Jie Zhang and Xue-Long Hou*

*Tetrahedron:* Asymmetry *14 (2003) 107*



$C_{34}H_{34}NOP$

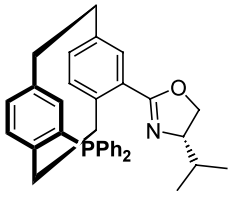
($S$,4$R_p$,13$S_p$)-4-Diphenylphosphino-13-(4-*iso*-propyloxazoline-2-yl)[2.2]paracyclophane

$[\alpha]_D^{20} = -92.7$ (*c* 0.575, $CHCl_3$)

Source of chirality: (*S*)-valinol

Xun-Wei Wu, Ke Yuan, Wei Sun, Ming-Jie Zhang and Xue-Long Hou*

*Tetrahedron:* Asymmetry *14 (2003) 107*



$C_{34}H_{34}NOP$

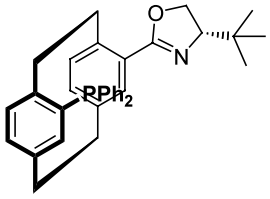
($S$,4$S_p$,13$R_p$)-4-Diphenylphosphino-13-(4-*iso*-propyloxazoline-2-yl)[2.2]paracyclophane

$[\alpha]_D^{20} = +4.9$ (*c* 0.65, $CHCl_3$)

Source of chirality: (*S*)-valinol

Xun-Wei Wu, Ke Yuan, Wei Sun, Ming-Jie Zhang and Xue-Long Hou*

*Tetrahedron:* Asymmetry *14 (2003) 107*



$C_{35}H_{36}NOP$

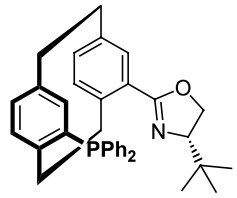
($S$,4$R_p$,13$S_p$)-4-Diphenylphosphino-13-(4-*tert*-butyloxazoline-2-yl)[2.2]paracyclophane

$[\alpha]_D^{20} = -80.6$ (*c* 0.565, $CHCl_3$)

Source of chirality: (*S*)-*tert*-leucinol

Xun-Wei Wu, Ke Yuan, Wei Sun, Ming-Jie Zhang and Xue-Long Hou*

*Tetrahedron:* Asymmetry *14 (2003) 107*

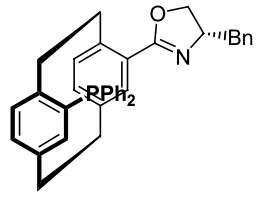


$[\alpha]_D^{20} = +21.0$ ($c$ 0.56, $CHCl_3$)
Source of chirality: (*S*)-*tert*-leucinol

$C_{35}H_{36}NOP$
($S$,4$S_p$,13$R_p$)-4-Diphenylphosphino-13-(4-*tert*-butyloxazoline-2-yl)[2.2]paracyclophane

Xun-Wei Wu, Ke Yuan, Wei Sun, Ming-Jie Zhang and Xue-Long Hou*

*Tetrahedron:* Asymmetry *14 (2003) 107*

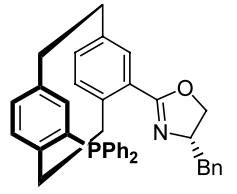


$[\alpha]_D^{20} = -47.5$ ($c$ 0.46, $CHCl_3$)
Source of chirality: (*S*)-phenylaniol

$C_{38}H_{34}NOP$
($S$,4$R_p$,13$S_p$)-4-Diphenylphosphino-13-(4-benzyloxazoline-2-yl)[2.2]paracyclophane

Xun-Wei Wu, Ke Yuan, Wei Sun, Ming-Jie Zhang and Xue-Long Hou*

*Tetrahedron:* Asymmetry *14 (2003) 107*

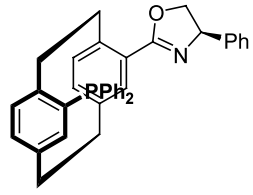


$[\alpha]_D^{20} = +8.2$ ($c$ 0.75, $CHCl_3$)
Source of chirality: (*S*)-phenylaniol

$C_{38}H_{34}NOP$
($S$,4$S_p$,13$R_p$)-4-Diphenylphosphino-13-(4-benzyloxazoline-2-yl)[2.2]paracyclophane

Xun-Wei Wu, Ke Yuan, Wei Sun, Ming-Jie Zhang and Xue-Long Hou*

*Tetrahedron:* Asymmetry *14 (2003) 107*

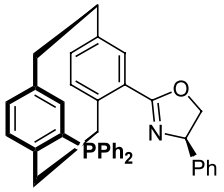


$[\alpha]_D^{20} = -23.3$ ($c$ 0.535, $CHCl_3$)
Source of chirality: (*R*)-phenylglycinol

$C_{37}H_{32}NOP$
($R$,4$R_p$,13$S_p$)-4-Diphenylphosphino-13-(4-phenyloxazoline-2-yl)[2.2]paracyclophane

Xun-Wei Wu, Ke Yuan, Wei Sun, Ming-Jie Zhang and Xue-Long Hou*

*Tetrahedron:* Asymmetry *14 (2003) 107*

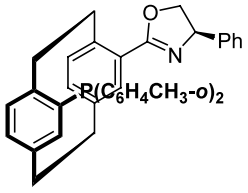



$[\alpha]_D^{20} = +46.7$ ($c$ 0.525, $CHCl_3$)
Source of chirality: (*R*)-phenylglycinol

$C_{37}H_{32}NOP$
($R$,4$S_p$,13$R_p$)-4-Diphenylphosphino-13-(4-phenyloxazoline-2-yl)[2.2]paracyclophane

Xun-Wei Wu, Ke Yuan, Wei Sun, Ming-Jie Zhang and Xue-Long Hou*

*Tetrahedron:* Asymmetry *14 (2003) 107*

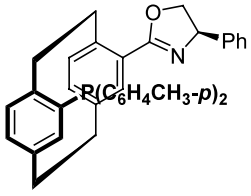



$[\alpha]_D^{20} = -58.8$ ($c$ 0.325, $CHCl_3$)
Source of chirality: (*R*)-phenylglycinol

$C_{39}H_{36}NOP$
($R$,4$R_p$,13$S_p$)-4-Di(*o*-toyl)phosphino-13-(4-phenyloxazoline-2-yl)[2.2]paracyclophane

Xun-Wei Wu, Ke Yuan, Wei Sun, Ming-Jie Zhang and Xue-Long Hou*

*Tetrahedron:* Asymmetry *14 (2003) 107*

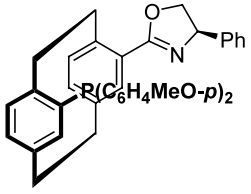



$[\alpha]_D^{20} = -29.5$ ($c$ 0.40, $CHCl_3$)
Source of chirality: (*R*)-phenylglycinol

$C_{39}H_{36}NOP$
($R$,4$R_p$,13$S_p$)-4-Di(*p*-toyl)phosphino-13-(4-phenyloxazoline-2-yl)[2.2]paracyclophane

Xun-Wei Wu, Ke Yuan, Wei Sun, Ming-Jie Zhang and Xue-Long Hou*

*Tetrahedron:* Asymmetry *14 (2003) 107*

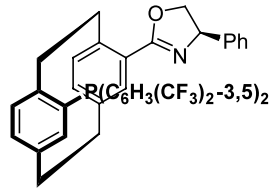



$[\alpha]_D^{20} = -31.2$ ($c$ 0.32, $CHCl_3$)
Source of chirality: (*R*)-phenylglycinol

$C_{39}H_{36}NO_3P$
($R$,4$R_p$,13$S_p$)-4-Di(*p*-methyloxylphenyl)phosphino-13-(4-phenyloxazoline-2-yl)[2.2]paracyclophane

Xun-Wei Wu, Ke Yuan, Wei Sun, Ming-Jie Zhang and Xue-Long Hou*

*Tetrahedron:* Asymmetry *14 (2003) 107*




$[\alpha]_D^{20} = +10.6$ (*c* 0.355, $CHCl_3$)

Source of chirality: (*R*)-phenylglycinol

$C_{41}H_{28}F_{12}NOP$

(*R*,4$R_p$,13$S_p$)-4-Di(3,5-di(trifluoromethyl)phenyl)phosphino-13-(4-phenyloxazoline-2-yl)[2.2]paracyclophane

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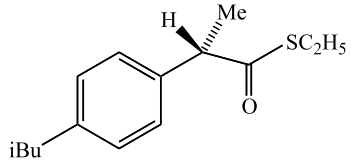
Marco Clericuzio,* Iacopo Degani,* Stefano Dughera and Rita Fochi

*Tetrahedron:* Asymmetry *14 (2003) 119*




E.e. = 78%

$[\alpha]_D^{22} = +73.3$ (*c* 0.4, $CH_2Cl_2$)

Source of chirality: (*R*)-BINOL·$SnCl_4$ complex (asymmetric protonation)

Absolute configuration: *S*

$C_{15}H_{22}OS$

*S*-Ethyl (*S*)-2-(4-isobutylphenyl)thiopropionate

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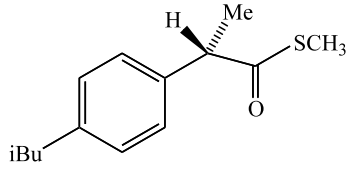
Marco Clericuzio,* Iacopo Degani,* Stefano Dughera and Rita Fochi

*Tetrahedron:* Asymmetry *14 (2003) 119*




E.e. = 82%

$[\alpha]_D^{22} = +80.5$ (*c* 0.35, $CH_2Cl_2$)

Source of chirality: (*R*)-BINOL·$SnCl_4$ complex (asymmetric protonation)

Absolute configuration: *S*

$C_{14}H_{20}OS$

*S*-Methyl (*S*)-2-(4-isobutylphenyl)thiopropionate

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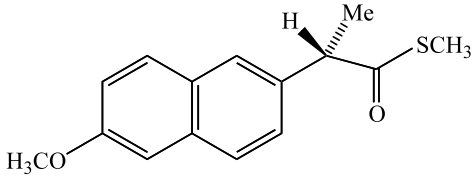
Marco Clericuzio,* Iacopo Degani,* Stefano Dughera and Rita Fochi

*Tetrahedron:* Asymmetry *14 (2003) 119*




E.e. = 64%

$[\alpha]_D^{22} = +81.2$ (*c* 0.6, $CH_2Cl_2$)

Source of chirality: (*R*)-BINOL·$SnCl_4$ complex (asymmetric protonation)

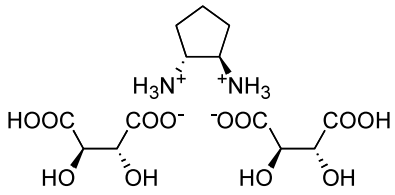
Absolute configuration: *S*

$C_{15}H_{16}O_2S$

*S*-Methyl (*S*)-2-(6-methoxy-2-naphthyl)thiopropionate

Adrian M. Daly and Declan G. Gilheany*

*Tetrahedron:* Asymmetry *14 (2003) 127*



$C_{13}H_{24}N_2O_{12}$

(*R*,*R*)-(−)-*trans*-Cyclopentane-1,2-diamine di-(+)-tartrate

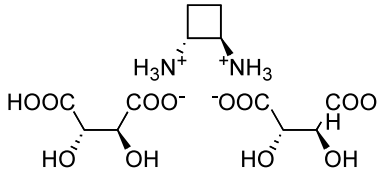
Ee >99%

$[\alpha]_D^{20} = +10.0$ (*c* 2, $H_2O$, lit. +10.1°)

Source of chirality: resolution

Adrian M. Daly and Declan G. Gilheany*

*Tetrahedron:* Asymmetry *14 (2003) 127*



$C_{12}H_{22}N_2O_{12}$

(+)-*trans*-Cyclobutane-1,2-diamine di-(+)-tartrate

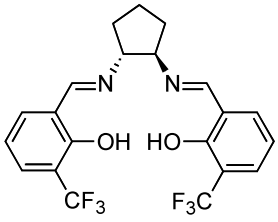
Ee >99%

$[\alpha]_D^{20} = +28.0$ (*c* 1, $H_2O$)

Source of chirality: resolution

Adrian M. Daly and Declan G. Gilheany*

*Tetrahedron:* Asymmetry *14 (2003) 127*



$C_{20}H_{16}F_6N_2O_2$

(*R*,*R*)-(−)-*N*,*N*′-Bis(3-trifluoromethylsalicylidene)-*trans*-cyclopentane-1,2-diamine

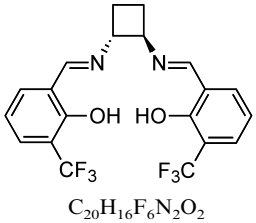
Ee >99%

$[\alpha]_D^{20} = -437$ (*c* 1, $CH_2Cl_2$)

Source of chirality: resolution

Adrian M. Daly and Declan G. Gilheany*

*Tetrahedron:* Asymmetry *14 (2003) 127*



$C_{20}H_{16}F_6N_2O_2$

(+)-*N*,*N*′-Bis(3-trifluoromethylsalicylidene)-*trans*-cyclobutane-1,2-diamine

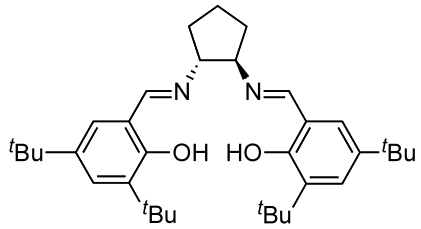
Ee >99%

$[\alpha]_D^{20} = +485$ (*c* 1, $CH_2Cl_2$)

Source of chirality: resolution

Adrian M. Daly and Declan G. Gilheany*

*Tetrahedron:* Asymmetry *14 (2003) 127*



$C_{35}H_{52}N_2O_2$

(*R*,*R*)-(−)-*N*,*N*′-Bis(3,5-di-*tert*-butylsalicylidene)-*trans*-cyclopentane-1,2-diamine

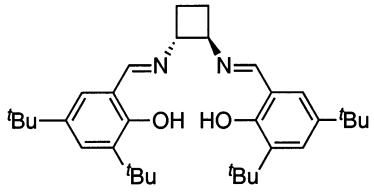
Ee >99%

$[\alpha]_D^{20} = -365$ (*c* 1, $CH_2Cl_2$)

Source of chirality: resolution

Adrian M. Daly and Declan G. Gilheany*

*Tetrahedron:* Asymmetry *14 (2003) 127*



$C_{34}H_{50}N_2O_2$

(+)-*N*,*N*′-Bis(3,5-di-*tert*-butylsalicylidene)-*trans*-cyclobutane-1,2-diamine

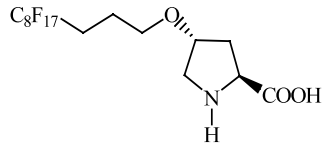
Ee >99%

$[\alpha]_D^{20} = +400$ (*c* 1, $CH_2Cl_2$)

Source of chirality: resolution

Fabienne Fache* and Olivier Piva

*Tetrahedron:* Asymmetry *14 (2003) 139*



$C_{16}H_{15}F_{17}NO_3$

*trans*-4-(Perfluorooctyl)propyloxy-L-proline

$[\alpha]_D^{25} = -11.7$ (*c* 0.47, EtOH)

Source of chirality: *trans*-4-hydroxy-L-proline

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