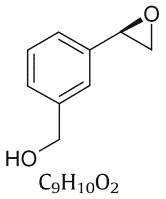
Guido Sello *, Silvana Bernasconi, Fulvia Orsini, Patrizia Di Gennaro

Tetrahedron: Asymmetry *20 (2009) 563*



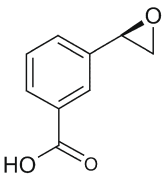
$C_9H_{10}O_2$

(3-Oxiranyl-phenyl)-methanol

Ee = >95%
$[\alpha]_D^{25} = -22.25$ (*c* 4.8 mg, $CHCl_3$)
Source of chirality: bioconversion
Absolute configuration: (*S*)

Guido Sello *, Silvana Bernasconi, Fulvia Orsini, Patrizia Di Gennaro

Tetrahedron: Asymmetry *20 (2009) 563*



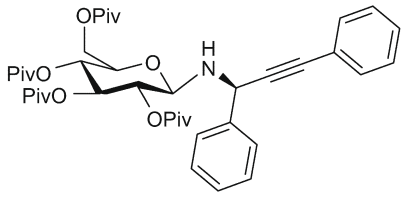
$C_9H_8O_3$

3-Oxiranyl-benzoic acid

Ee = >95%
$[\alpha]_D^{25} = -12.6$ (*c* 4.4 mg, CH_3OH)
Source of chirality: bioconversion
Absolute configuration: (*S*)

Jiangang Mao, Pengfei Zhang *

Tetrahedron: Asymmetry *20 (2009) 566*



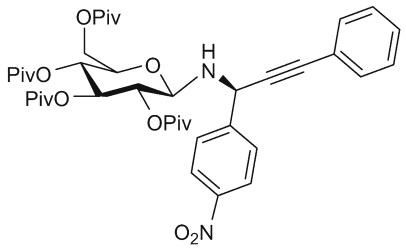
$C_{41}H_{55}NO_9$

N-(2,3,4,6-Tetra-*O*-pivaloyl-β-D-glucopyranosyl)-1,3-diphenylprop-2-ynylamine

De = 90%
$[\alpha]_D^{20} = +30.55$ (*c* 0.036, $CHCl_3$)
Source of chirality: 2,3,4,6-tetra-*O*-pivaloyl-β-D-glucopyranose
Absolute configuration: (*R*)

Jiangang Mao, Pengfei Zhang *

Tetrahedron: Asymmetry *20 (2009) 566*



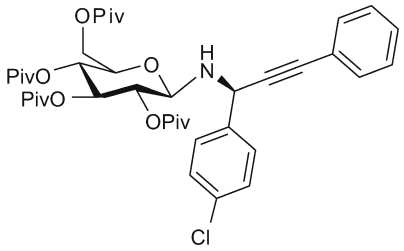
$C_{41}H_{54}N_2O_{11}$

N-(2,3,4,6-Tetra-*O*-pivaloyl-β-D-glucopyranosyl)-1-(4-nitrophenyl)-3-phenylprop-2-ynylamine

De = 91%
$[\alpha]_D^{20} = +32.4$ (*c* 0.032, $CHCl_3$)
Source of chirality: 2,3,4,6-tetra-*O*-pivaloyl-β-D-glucopyranose
Absolute configuration: (*R*)

Jiangang Mao, Pengfei Zhang *

Tetrahedron: Asymmetry *20 (2009) 566*



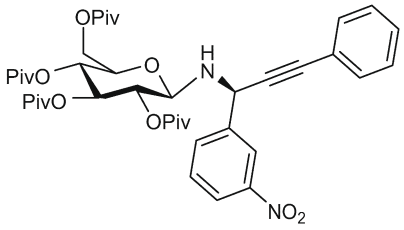
$C_{41}H_{54}ClNO_9$

De = 93%
$[\alpha]_D^{20} = +36.6$ (*c* 0.023, $CHCl_3$)
Source of chirality: 2,3,4,6-tetra-*O*-pivaloyl-β-D-glucopyranose
Absolute configuration: (*R*)

N-(2,3,4,6-Tetra-*O*-pivaloyl-β-D-glucopyranosyl)-1-(4-chlorophenyl)-3-phenylprop-2-ynylamine

Jiangang Mao, Pengfei Zhang *

Tetrahedron: Asymmetry *20 (2009) 566*



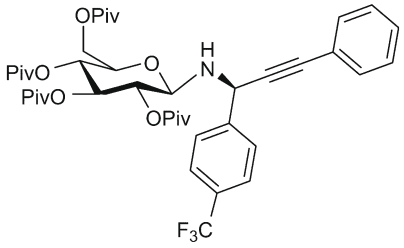
$C_{41}H_{54}N_2O_{11}$

De = 96%
$[\alpha]_D^{20} = +16.9$ (*c* 0.043, $CHCl_3$)
Source of chirality: 2,3,4,6-tetra-*O*-pivaloyl-β-D-glucopyranose
Absolute configuration: (*R*)

N-(2,3,4,6-Tetra-*O*-pivaloyl-β-D-glucopyranosyl)-1-(3-trifluoromethyl)penyl-3-phenylprop-2-ynylamine

Jiangang Mao, Pengfei Zhang *

Tetrahedron: Asymmetry *20 (2009) 566*



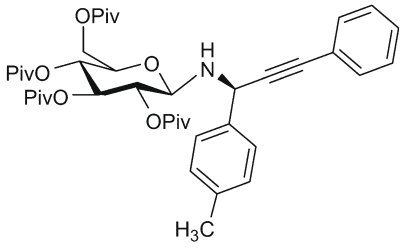
$C_{42}H_{54}F_3NO_9$

De = 93%
$[\alpha]_D^{20} = +31.45$ (*c* 0.027, $CHCl_3$)
Source of chirality: 2,3,4,6-tetra-*O*-pivaloyl-β-D-glucopyranose
Absolute configuration: (*R*)

N-(2,3,4,6-Tetra-*O*-pivaloyl-β-D-glucopyranosyl)-1-(4-trifluoromethyl)penyl-3-phenylprop-2-ynylamine

Jiangang Mao, Pengfei Zhang *

Tetrahedron: Asymmetry *20 (2009) 566*



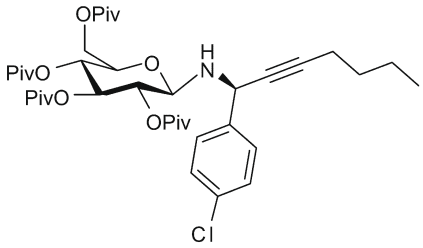
$C_{42}H_{57}NO_9$

De = 92%
$[\alpha]_D^{20} = +17.2$ (*c* 0.073, $CHCl_3$)
Source of chirality: 2,3,4,6-tetra-*O*-pivaloyl-β-D-glucopyranose
Absolute configuration: (*R*)

N-(2,3,4,6-Tetra-*O*-pivaloyl-β-D-glucopyranosyl)-1-(4-methylphenyl)-3-phenylprop-2-ynylamine

Jiangang Mao, Pengfei Zhang *

Tetrahedron: Asymmetry *20 (2009) 566*



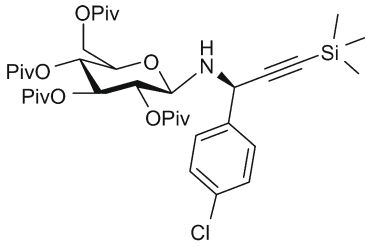
De = 78%
$[\alpha]_D^{20} = +11.9$ (*c* 0.056, $CHCl_3$)
Source of chirality: 2,3,4,6-tetra-*O*-pivaloyl-β-D-glucopyranose
Absolute configuration: (*R*)

$C_{39}H_{58}ClNO_9$

N-(2,3,4,6-Tetra-*O*-pivaloyl-β-D-glucopyranosyl)-1-(4- chlorophenyl)-hept-2-ynylamine

Jiangang Mao, Pengfei Zhang *

Tetrahedron: Asymmetry *20 (2009) 566*



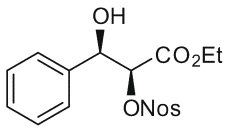
De = 28%
$[\alpha]_D^{20} = +9.4$ (*c* 0.039, $CHCl_3$)
Source of chirality: 2,3,4,6-tetra-*O*-pivaloyl-β-D-glucopyranose
Absolute configuration: (*R*)

$C_{38}H_{58}ClNO_9Si$

N-(2,3,4,6-Tetra-*O*-pivaloyl-β-D-glucopyranosyl)-1-(4-chlorophenyl)-3-(trimethylsilyl)-prop-2-ynylamine

Kirsty Smithies, Mark E. B. Smith, Ursula Kaulmann, James L. Galman, John M. Ward, Helen C. Hailes *

Tetrahedron: Asymmetry *20 (2009) 570*



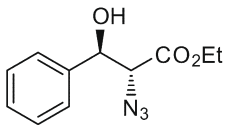
De ⩾ 70% [(2*R*,3*R*)-diastereoisomer present]
$[\alpha]_D^{24} = -42.5$ (*c* 3.9, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (2*S*,3*R*)

$C_{17}H_{17}NO_8S$

(2*S*,3*R*) Ethyl 3-hydroxy-2-(4-nitrophenylsulfonyloxy)-3-phenylpropanoate

Kirsty Smithies, Mark E. B. Smith, Ursula Kaulmann, James L. Galman, John M. Ward, Helen C. Hailes *

Tetrahedron: Asymmetry *20 (2009) 570*



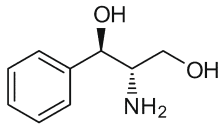
De ⩾ 70% [(2*S*,3*R*)-diastereoisomer present]
$[\alpha]_D^{24} = +9.4$ (*c* 11.1, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (2*R*,3*R*)

$C_{11}H_{13}N_3O_3$

(2*R*,3*R*) Ethyl 2-azido-3-hydroxy-3-phenylpropanoate

Kirsty Smithies, Mark E. B. Smith, Ursula Kaulmann, James L. Galman, John M. Ward, Helen C. Hailes *

Tetrahedron: Asymmetry *20 (2009) 570*



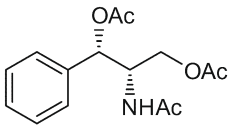
$C_9H_{13}NO_2$

(1*R*,2*S*)-2-Amino-1-phenyl-1,3-propanediol

De ⩾ 70% [(1*R*,2*R*)-diastereoisomer present via asymmetric synthesis]
$[\alpha]_D^{20} = -14.9$ (*c* 2.0, MeOH)
Source of chirality: asymmetric synthesis and biocatalysis
Absolute configuration: (1*R*,2*S*)

Kirsty Smithies, Mark E. B. Smith, Ursula Kaulmann, James L. Galman, John M. Ward, Helen C. Hailes *

Tetrahedron: Asymmetry *20 (2009) 570*



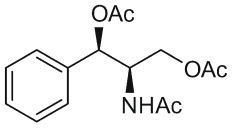
$C_{15}H_{19}NO_5$

(1*S*,2*S*)-2-Acetamido-1-phenylpropane-1,3-diyl diacetate

Ee ⩾ 98% (derivative of commercial sample)
$[\alpha]_D^{20} = +47.1$ (*c* 2.0, $CHCl_3$)
Source of chirality: derivative of commercial sample and biocatalysis
Absolute configuration: (1*S*,2*S*)

Kirsty Smithies, Mark E. B. Smith, Ursula Kaulmann, James L. Galman, John M. Ward, Helen C. Hailes *

Tetrahedron: Asymmetry *20 (2009) 570*



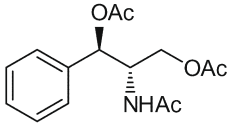
$C_{15}H_{19}NO_5$

(1*R*,2*R*)-2-Acetamido-1-phenylpropane-1,3-diyl diacetate

Ee ⩾ 98% (derivative of commercial sample)
$[\alpha]_D^{20} = -61.1$ (*c* 2.0, $CHCl_3$)
Source of chirality: derivative of commercial sample
Absolute configuration: (1*R*,2*R*)

Kirsty Smithies, Mark E. B. Smith, Ursula Kaulmann, James L. Galman, John M. Ward, Helen C. Hailes *

Tetrahedron: Asymmetry *20 (2009) 570*



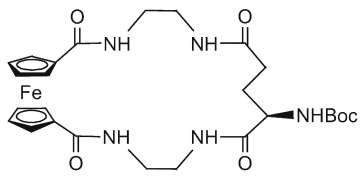
$C_{15}H_{19}NO_5$

(1*R*,2*S*)-2-Acetamido-1-phenylpropane-1,3-diyl diacetate

De ⩾ 70% [(1*R*,2*R*)-diastereoisomer present via asymmetric synthesis]
$[\alpha]_D^{20} = -19.4$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric synthesis and biocatalysis
Absolute configuration: (1*R*,2*S*)

Guang-yan Qing *, Tao-lei Sun, Yong-bing He, Feng Wang, Zhi-hong Chen

Tetrahedron: Asymmetry *20 (2009) 575*



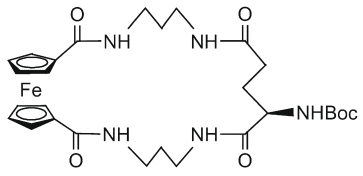
$[\alpha]_D^{20} = +41.4$ (c 0.010, $CHCl_3$)
Source of chirality = D-glutamic acid
Absolute configuration: (R)

$C_{26}H_{35}N_5O_6Fe$

(R)-2-(*tert*-Butoxylcarbonyl)amino-N^1,N^5-bis(2-acetamidoethyl)pentanediamide-ferrocene

Guang-yan Qing *, Tao-lei Sun, Yong-bing He, Feng Wang, Zhi-hong Chen

Tetrahedron: Asymmetry *20 (2009) 575*



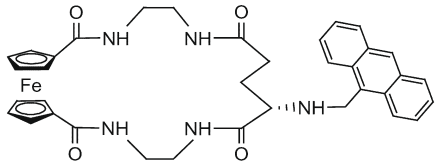
$[\alpha]_D^{20} = +17.3$ (c 0.010, $CHCl_3$)
Source of chirality = D-glutamic acid
Absolute configuration: (R)

$C_{28}H_{39}N_5O_6Fe$

(R)-2-(*tert*-Butoxylcarbonyl)amino-N^1,N^5-bis(3-acetamidopropyl)pentanediamide-ferrocene

Guang-yan Qing *, Tao-lei Sun, Yong-bing He, Feng Wang, Zhi-hong Chen

Tetrahedron: Asymmetry *20 (2009) 575*



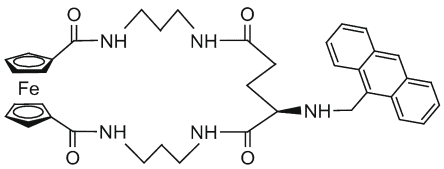
$[\alpha]_D^{20} = +21.15$ (c 0.010, $CHCl_3$)
Source of chirality = D-glutamic acid
Absolute configuration: (R)

$C_{36}H_{37}N_5O_4Fe$

(R)-N^1,N^5-Bis(2-acetamidoethyl)-2-(anthracen-9-ylmethylamino)pentanediamide-ferrocene

Guang-yan Qing *, Tao-lei Sun, Yong-bing He, Feng Wang, Zhi-hong Chen

Tetrahedron: Asymmetry *20 (2009) 575*



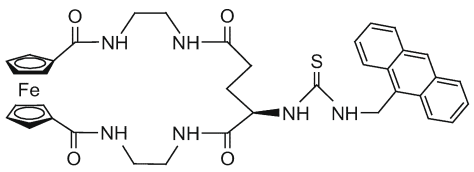
$[\alpha]_D^{20} = +8.8$ (c 0.010, $CHCl_3$)
Source of chirality = D-glutamic acid
Absolute configuration: (R)

$C_{38}H_{41}N_5O_4Fe$

(R)-N^1,N^5-Bis(3-acetamidopropyl)-2-(anthracen-9-ylmethylamino)pentanediamide-ferrocene

Guang-yan Qing *, Tao-lei Sun, Yong-bing He, Feng Wang, Zhi-hong Chen

Tetrahedron: Asymmetry *20 (2009) 575*



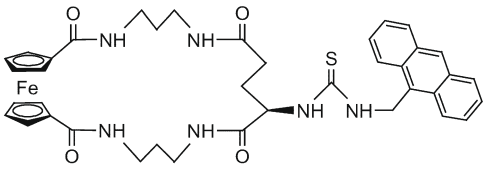
$[\alpha]_D^{20} = -33.56$ (c 0.010, $CHCl_3$)
Source of chirality = D-glutamic acid
Absolute configuration: (*R*)

$C_{37}H_{38}N_6O_4SFe$

(*R*)-N^1,N^5-Bis(2-acetamidoethyl)-2-(3-(anthracen-9-ylmethyl)thioureido)pentanediamide-ferrocene

Guang-yan Qing *, Tao-lei Sun, Yong-bing He, Feng Wang, Zhi-hong Chen

Tetrahedron: Asymmetry *20 (2009) 575*



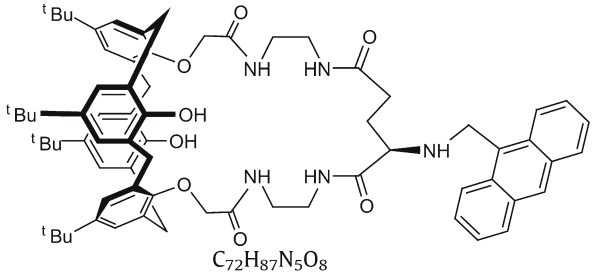
$[\alpha]_D^{20} = +4.25$ (c 0.010, $CHCl_3$)
Source of chirality = D-glutamic acid
Absolute configuration: (*R*)

$C_{39}H_{42}N_6O_4SFe$

(*R*)-N^1,N^5-Bis(3-acetamidopropyl)-2-(3-(anthracen-9-ylmethyl)thioureido) pentanediamide-ferrocene

Guang-yan Qing *, Tao-lei Sun, Yong-bing He, Feng Wang, Zhi-hong Chen

Tetrahedron: Asymmetry *20 (2009) 575*



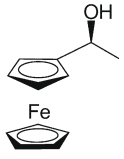
$[\alpha]_D^{20} = +9.5$ (c 0.010, $CHCl_3$)
Source of chirality = D-glutamic acid
Absolute configuration: (*R*)

$C_{72}H_{87}N_5O_8$

5,11,17,23-Tetra-4-*tert*-butyl-25,27-((*R*)-N^1,N^5-bis(2-(2-methoxylacetamido)ethyl)-2-(anthracen-9-ylmethylamino)pentanediamide)-26,28-dihydroxylcalix[4]arene

Yinuo Wu, Chuanjun Lu, Wenjun Shan, Xingshu Li *

Tetrahedron: Asymmetry *20 (2009) 584*



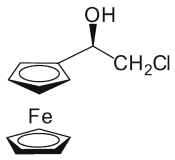
$[\alpha]_D^{20} = +28$ (c 1.33, CH_2Cl_2)
Ee: 98%
Absolute configuration: (*S*)
Source of chirality: asymmetric transfer hydrogenation

$C_{12}H_{14}FeO$

(*S*)-(+)-1-Ferrocenylethanol

Yinuo Wu, Chuanjun Lu, Wenjun Shan, Xingshu Li *

Tetrahedron: Asymmetry *20 (2009) 584*



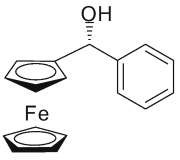
$C_{12}H_{13}ClFeO$

(*S*)-(+)-1-(α-Chloroferrocenyl)ethanol

$[\alpha]_D^{20} = +19$ (*c* 0.93, CH_2Cl_2)
Ee: 98%
Absolute configuration: (*S*)
Source of chirality: asymmetric transfer hydrogenation

Yinuo Wu, Chuanjun Lu, Wenjun Shan, Xingshu Li *

Tetrahedron: Asymmetry *20 (2009) 584*



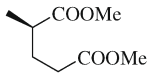
$C_{17}H_{16}FeO$

(*R*)-(-)-Ferrocenylphenylmethanol

$[\alpha]_D^{20} = -94$ (*c* 1.01, CH_2Cl_2)
Ee: 93%
Absolute configuration: (*R*)
Source of chirality: asymmetric transfer hydrogenation

Zheng-Chao Duan, Xiang-Ping Hu *, Jun Deng, Sai-Bo Yu, Dao-Yong Wang, Zhuo Zheng *

Tetrahedron: Asymmetry *20 (2009) 588*



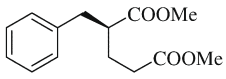
$C_8H_{14}O_4$

Dimethyl (*R*)-2-methylglutarate

Ee = 92%
$[\alpha]_D^{25} = -8.1$ (*c* 0.64, $CHCl_3$)
Source of chirality: asymmetric hydrogenation
Absolute configuration: (*R*)

Zheng-Chao Duan, Xiang-Ping Hu *, Jun Deng, Sai-Bo Yu, Dao-Yong Wang, Zhuo Zheng *

Tetrahedron: Asymmetry *20 (2009) 588*



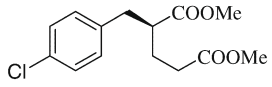
$C_{14}H_{18}O_4$

Dimethyl (−)-2-benzylglutarate

Ee = 76%
$[\alpha]_D^{20} = -4.8$ (*c* 1.02, $CHCl_3$)
Source of chirality: asymmetric hydrogenation

Zheng-Chao Duan, Xiang-Ping Hu *, Jun Deng, Sai-Bo Yu, Dao-Yong Wang, Zhuo Zheng *

Tetrahedron: Asymmetry *20 (2009) 588*



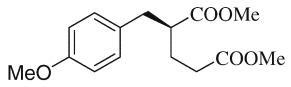
$C_{14}H_{17}ClO_4$

Dimethyl (−)-2-(4-chlorobenzyl)glutarate

Ee = 75%
$[\alpha]_D^{20} = -8.5$ (*c* 1.18, $CHCl_3$)
Source of chirality: asymmetric hydrogenation

Zheng-Chao Duan, Xiang-Ping Hu *, Jun Deng, Sai-Bo Yu, Dao-Yong Wang, Zhuo Zheng *

Tetrahedron: Asymmetry *20 (2009) 588*



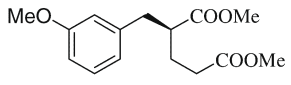
$C_{15}H_{20}O_5$

Dimethyl (−)-2-(4-methoxybenzyl)glutarate

Ee = 78%
$[\alpha]_D^{20} = -8.6$ (*c* 1.14, $CHCl_3$)
Source of chirality: asymmetric hydrogenation

Zheng-Chao Duan, Xiang-Ping Hu *, Jun Deng, Sai-Bo Yu, Dao-Yong Wang, Zhuo Zheng *

Tetrahedron: Asymmetry *20 (2009) 588*



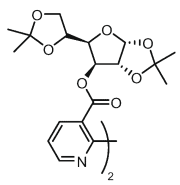
$C_{15}H_{20}O_5$

Dimethyl (−)-2-(3-methoxybenzyl)glutarate

Ee = 81%
$[\alpha]_D^{20} = -2.7$ (*c* 1.16, $CHCl_3$)
Source of chirality: asymmetric hydrogenation

Aurélie Assalit, Thierry Billard *, Stéphane Chambert, Bernard R. Langlois, Yves Queneau *, Diane Coe

Tetrahedron: Asymmetry *20 (2009) 593*



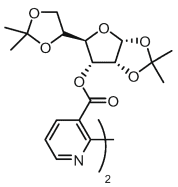
$C_{36}H_{44}N_2O_{14}$

Bis(3-deoxy-1,2:5,6-di-*O*-isopropylidene-α-D-glucofuranos-3-yl)-2,2′-bipyridine-3,3′-dicarboxylate

Ee = 100%
$[\alpha]_D = -67$ (*c* 0.5, $CHCl_3$)
Source of chirality: α-D-glucofuranoside

Aurélie Assalit, Thierry Billard *, Stéphane Chambert, Bernard R. Langlois, Yves Queneau *, Diane Coe

Tetrahedron: Asymmetry *20 (2009) 593*



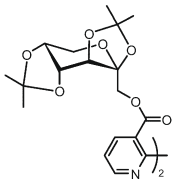
Ee = 100%
$[\alpha]_D$ = +138 (*c* 0.5, $CHCl_3$)
Source of chirality: α-D-allofuranoside

$C_{36}H_{44}N_2O_{14}$

Bis(3-deoxy-1,2:5,6-di-*O*-isopropylidene-α-D-allofuranos-3-yl)-2,2′-bipyridine-3,3′-dicarboxylate

Aurélie Assalit, Thierry Billard *, Stéphane Chambert, Bernard R. Langlois, Yves Queneau *, Diane Coe

Tetrahedron: Asymmetry *20 (2009) 593*



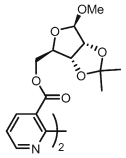
Ee = 100%
$[\alpha]_D$ = −12 (*c* 0.5, $CHCl_3$)
Source of chirality: β-D-fructopyranoside

$C_{36}H_{44}N_2O_{14}$

Bis(1-deoxy-2,3:4,5-di-*O*-isopropylidene-β-D-fructopyranos-1-yl)-2,2′-bipyridine-3,3′-dicarboxylate

Aurélie Assalit, Thierry Billard *, Stéphane Chambert, Bernard R. Langlois, Yves Queneau *, Diane Coe

Tetrahedron: Asymmetry *20 (2009) 593*



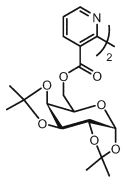
Ee = 100%
$[\alpha]_D$ = −45 (*c* 0.5, $CHCl_3$)
Source of chirality: β-D-ribofuranoside

$C_{30}H_{36}N_2O_{12}$

Bis(5-deoxy-1-*O*-methyl, 2,3-*O*-isopropylidene-β-D-ribofuranos-5-yl)-2,2′-bipyridine-3,3′-dicarboxylate

Aurélie Assalit, Thierry Billard *, Stéphane Chambert, Bernard R. Langlois, Yves Queneau *, Diane Coe

Tetrahedron: Asymmetry *20 (2009) 593*



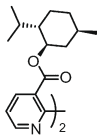
Ee = 100%
$[\alpha]_D$ = −46 (*c* 0.5, $CHCl_3$)
Source of chirality: α-D-galactopyranoside

$C_{36}H_{44}N_2O_{14}$

Bis(6-deoxy-1,2:3,4-di-*O*-isopropylidene-α-D-galactopyranos-6-yl)-2,2′-bipyridine-3,3′-dicarboxylate

Aurélie Assalit, Thierry Billard *, Stéphane Chambert, Bernard R. Langlois, Yves Queneau *, Diane Coe

Tetrahedron: Asymmetry *20 (2009) 593*



Ee = 100%
$[\alpha]_D = -50$ (*c* 0.5, $CHCl_3$)
Source of chirality: (−) menthol

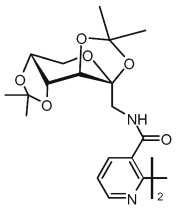
$C_{32}H_{44}N_2O_4$

Bis[(2*R*,5*S*)-5-methyl-2-(1-methylethyl)cyclohexyl]-2,2′-bipyridine-3,3′-dicarboxylate

---

Aurélie Assalit, Thierry Billard *, Stéphane Chambert, Bernard R. Langlois, Yves Queneau *, Diane Coe

Tetrahedron: Asymmetry *20 (2009) 593*



Ee = 100%
$[\alpha]_D = -31$ (*c* 1.0, $CHCl_3$)
Source of chirality: β-D-fructopyranoside

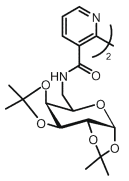
$C_{36}H_{47}N_4O_{12}$

N,*N*′- bis-(1-deoxy-2,3:4,5-di-*O*-isopropylidene-β-D-fructopyranos-1-yl)-2,2′-bipyridine-3,3′-carboxamide

---

Aurélie Assalit, Thierry Billard *, Stéphane Chambert, Bernard R. Langlois, Yves Queneau *, Diane Coe

Tetrahedron: Asymmetry *20 (2009) 593*



Ee = 100%
$[\alpha]_D = -19$ (*c* 0.5, $CHCl_3$)
Source of chirality: α-D-galactopyranoside

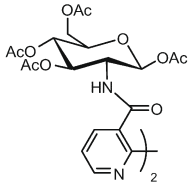
$C_{36}H_{47}N_4O_{12}$

N,*N*′-bis-(6-deoxy-1,2:3,4-di-*O*-isopropylidene-α-D-galactopyranos-6-yl)-2,2′-bipyridine-3,3′-carboxamide

---

Aurélie Assalit, Thierry Billard *, Stéphane Chambert, Bernard R. Langlois Yves Queneau *, Diane Coe

Tetrahedron: Asymmetry *20 (2009) 593*



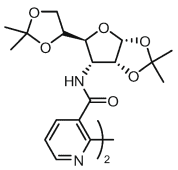
Ee = 100%
$[\alpha]_D = +30$ (*c* 0.5, $CHCl_3$)
Source of chirality: -β-D-glucopyranoside

$C_{40}H_{47}N_4O_{20}$

N,*N*′- bis-(1,3,4,6-tetra-*O*-acetyl-2-deoxy-β-D-glucopyranos-1-yl)-2,2′-bipyridine-3,3′-carboxamide

Aurélie Assalit, Thierry Billard *, Stéphane Chambert, Bernard R. Langlois
Yves Queneau *, Diane Coe

Tetrahedron: Asymmetry *20 (2009) 593*



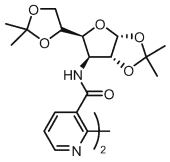
Ee = 100%
$[\alpha]_D$ = +48 (*c* 0.5, $CHCl_3$)
Source of chirality: α-D-allofuranoside

$C_{36}H_{46}N_4O_{12}$

N,*N*′-bis-(3-deoxy-1,2:5,6-di-*O*-isopropylidene-α-D-allofuranos-1-yl)-2,2′-bipyridine-3,3′-carboxamide

Aurélie Assalit, Thierry Billard *, Stéphane Chambert, Bernard R. Langlois,
Yves Queneau *, Diane Coe

Tetrahedron: Asymmetry *20 (2009) 593*



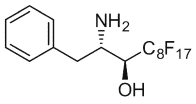
Ee = 100%
$[\alpha]_D$ = −39 (*c* 0.5, $CHCl_3$)
Source of chirality: α-D-glucofuranoside

$C_{36}H_{46}N_4O_{12}$

N,*N*′- bis-(3-deoxy-1,2:5,6-di-*O*-isopropylidene-α-D-glucofuranos-1-yl)-2,2′-bipyridine-3,3′-carboxamide

Masaaki Omote, Yusuke Eto, Atsushi Tarui, Kazuyuki Sato, Akira Ando *

Tetrahedron: Asymmetry *20 (2009) 602*



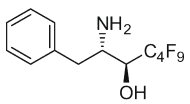
$[\alpha]_D^{24} = -3.7$ (*c* 1.04, $CHCl_3$)
Source of chirality: *N*-(*tert*-Butoxycarbonyl)-L-phenylalanine methyl ester
Absolute configuration: (2*S*,3*S*)

$C_{17}H_{12}F_{17}NO$

(2*S*,3*S*)-2-Amino-4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-1-phenyl-undecan-3-ol

Masaaki Omote, Yusuke Eto, Atsushi Tarui, Kazuyuki Sato, Akira Ando *

Tetrahedron: Asymmetry *20 (2009) 602*



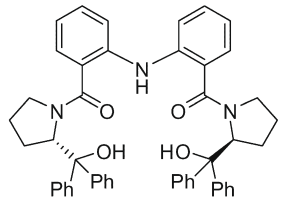
$[\alpha]_D^{24} = -3.7$ (*c* 1.05, $CHCl_3$)
Source of chirality: *N*-(*tert*-Butoxycarbonyl)-L-phenylalanine methyl ester
Absolute configuration: (2*S*,3*S*)

$C_{13}H_{12}F_9NO$

(2*S*,3*S*)-2-Amino-4,4,5,5,6,6,7,7,7-nonafluoro-1-phenylheptan-3-ol

Jin Wang, Han Liu, Da-Ming Du *

Tetrahedron: Asymmetry *20 (2009) 605*



$C_{48}H_{45}N_3O_4$

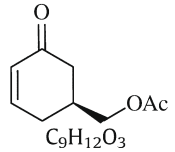
1,1′-(Diphenylamine-2,2′-dicarbonyl)-bis[(2*S*)-α,α-diphenyl-2-pyrrolidinemethanol]

Ee = 99.5%
$[\alpha]_D^{25} = -98.0$ (*c* 0.5, CH_2Cl_2)
Absolute configuration: (*S*,*S*)
Source of chirality: (2*S*)-α,α-diphenyl-2-pyrrolidine-methanol

---

Tridib Mahapatra, Samik Nanda *

Tetrahedron: Asymmetry *20 (2009) 610*



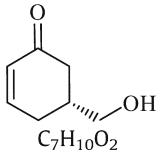
$C_9H_{12}O_3$

Acetic acid (*S*)-5-oxo-cyclohex-3-enylmethyl ester

Ee = 98%
$[\alpha]_D^{29} = +25.7$ (*c* 1.0, MeOH)
Source of chirality: enzymatic transesterification
Absolute configuration: (5*S*)

Tridib Mahapatra, Samik Nanda *

Tetrahedron: Asymmetry *20 (2009) 610*



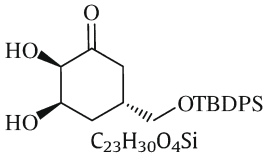
$C_7H_{10}O_2$

(*R*)-5-Hydroxymethyl-cyclohex-2-enone

Ee = 99%
$[\alpha]_D^{29} = -32.85$ (*c* 1.0, MeOH)
Source of chirality: enzymatic transesterification
Absolute configuration: (5*R*)

Tridib Mahapatra, Samik Nanda *

Tetrahedron: Asymmetry *20 (2009) 610*



$C_{23}H_{30}O_4Si$

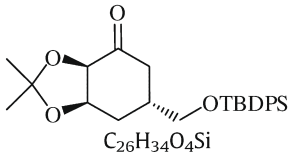
(2*R*,3*R*,5*R*)-5-(*tert*-Butyl-diphenyl-silanyloxymethyl)-2,3-dihydroxy-cyclohexanone

$[\alpha]_D^{29} = -18.5$ (*c* 1.0, MeOH)
Source of chirality: asymmetric synthesis
Absolute configuration: (2*R*,3*R*,5*R*)

Tridib Mahapatra, Samik Nanda *

Tetrahedron: Asymmetry *20 (2009) 610*

$[\alpha]_D^{29} = -5.5$ (*c* 1.0, MeOH)
Source of chirality: asymmetric synthesis
Absolute configuration: (3*R*,6*R*,7*R*)



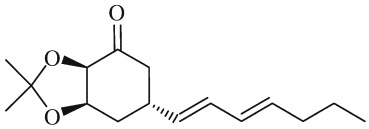
$C_{26}H_{34}O_4Si$

(3*R*,6*R*,7*R*)-6-(*tert*-Butyl-diphenyl-silyloxymethyl)-2,2-dimethyl-tetrahydro-benzo[1,3]dioxol-4-one

Tridib Mahapatra, Samik Nanda *

Tetrahedron: Asymmetry *20 (2009) 610*

$[\alpha]_D^{29} = -7.9$ (*c* 1.0, MeOH)
Source of chirality: asymmetric synthesis
Absolute configuration: (3*R*,6*R*,7*R*)



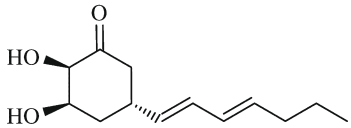
$C_{16}H_{24}O_3$

(3*R*,6*R*,7*R*)-6-((1*E*,3*E*)-Hepta-1,3-dienyl)-2,2-dimethyl-tetrahydro-benzo[1,3]dioxol-4-one

Tridib Mahapatra, Samik Nanda *

Tetrahedron: Asymmetry *20 (2009) 610*

$[\alpha]_D^{29} = -6.7$ (*c* 1.0, MeOH)
Source of chirality: asymmetric synthesis
Absolute configuration: (2*R*,3*R*,5*R*)



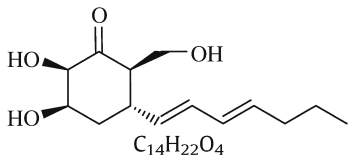
$C_{13}H_{20}O_3$

(2*R*,3*R*,5*R*)-5-((1*E*,3*E*)-Hepta-1,3-dienyl)-2,3-dihydroxy-cyclohexanone

Tridib Mahapatra, Samik Nanda *

Tetrahedron: Asymmetry *20 (2009) 610*

$[\alpha]_D^{29} = +4.4$ (*c* 0.5, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (2*R*,3*S*,5*R*,6*R*)

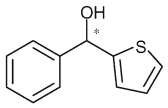


$C_{14}H_{22}O_4$

(2*R*,3*S*,5*R*,6*R*)-3-((1*E*,3*E*)-Hepta-1,3-dienyl)-5,6-dihydroxy-2-hydroxymethyl-cyclohexanone

Xiaodong Liu, Li Qiu, Liang Hong, Wenjing Yan, Rui Wang *

Tetrahedron: Asymmetry *20 (2009) 616*



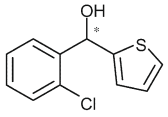
$C_{11}H_{10}OS$

(Phenyl)-(2′-thienyl)methanol

Ee = 93%
$[\alpha]_D^{20} = -3.6$ (c 1.89, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: unknown

Xiaodong Liu, Li Qiu, Liang Hong, Wenjing Yan, Rui Wang *

Tetrahedron: Asymmetry *20 (2009) 616*



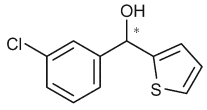
$C_{11}H_9ClOS$

(2-Chlorophenyl)-(2′-thienyl)methanol

Ee = 92%
$[\alpha]_D^{20} = -31$ (c 1.1, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: unknown

Xiaodong Liu, Li Qiu, Liang Hong, Wenjing Yan, Rui Wang *

Tetrahedron: Asymmetry *20 (2009) 616*



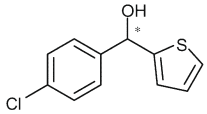
$C_{11}H_9ClOS$

(3-Chlorophenyl)-(2′-thienyl)methanol

Ee = 81%
$[\alpha]_D^{20} = -13$ (c 1.0, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: unknown

Xiaodong Liu, Li Qiu, Liang Hong, Wenjing Yan, Rui Wang *

Tetrahedron: Asymmetry *20 (2009) 616*



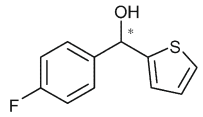
$C_{11}H_9ClOS$

(4-Chlorophenyl)-(2′-thienyl)methanol

Ee = 85%
$[\alpha]_D^{20} = -19$ (c 1.0, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: unknown

Xiaodong Liu, Li Qiu, Liang Hong, Wenjing Yan, Rui Wang *

Tetrahedron: Asymmetry *20 (2009) 616*



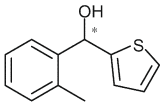
$C_{11}H_9FOS$

(4-Fluorophenyl)-(2′-thienyl)methanol

Ee = 92%
$[\alpha]_D^{20} = -15$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: unknown

Xiaodong Liu, Li Qiu, Liang Hong, Wenjing Yan, Rui Wang *

Tetrahedron: Asymmetry *20 (2009) 616*



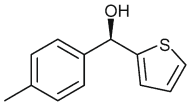
$C_{12}H_{12}OS$

(2-Methylphenyl)-(2′-thienyl)methanol

Ee = 94%
$[\alpha]_D^{20} = -24$ (*c* 1.3, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: unknown

Xiaodong Liu, Li Qiu, Liang Hong, Wenjing Yan, Rui Wang *

Tetrahedron: Asymmetry *20 (2009) 616*



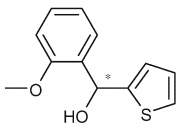
$C_{12}H_{12}OS$

(*R*)-(4-Methylphenyl)-(2′-thienyl)methanol

Ee = 84%
$[\alpha]_D^{20} = -16$ (*c* 1.0, $CHCl_3$)

Xiaodong Liu, Li Qiu, Liang Hong, Wenjing Yan, Rui Wang *

Tetrahedron: Asymmetry *20 (2009) 616*



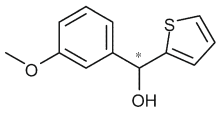
$C_{12}H_{12}O_2S$

(2-Methoxyphenyl)-(2′-thienyl)methanol

Ee = 95%
$[\alpha]_D^{20} = -20$ (*c* 0.95, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: unknown

Xiaodong Liu, Li Qiu, Liang Hong, Wenjing Yan, Rui Wang *

Tetrahedron: Asymmetry *20 (2009) 616*



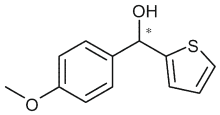
$C_{12}H_{12}O_2S$

(3-Methoxyphenyl)-(2′-thienyl)methanol

Ee = 93%
$[\alpha]_D^{20} = -10$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: unknown

Xiaodong Liu, Li Qiu, Liang Hong, Wenjing Yan, Rui Wang *

Tetrahedron: Asymmetry *20 (2009) 616*



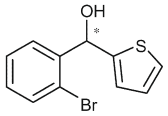
$C_{12}H_{12}O_2S$

(4-Methoxyphenyl)-(2′-thienyl)methanol

Ee = 96%
$[\alpha]_D^{20} = -16$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: unknown

Xiaodong Liu, Li Qiu, Liang Hong, Wenjing Yan, Rui Wang *

Tetrahedron: Asymmetry *20 (2009) 616*



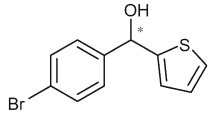
$C_{11}H_9BrOS$

(2-Bromophenyl)-(2′-thienyl)methanol

Ee = 95%
$[\alpha]_D^{20} = -49$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: unknown

Xiaodong Liu, Li Qiu, Liang Hong, Wenjing Yan, Rui Wang *

Tetrahedron: Asymmetry *20 (2009) 616*



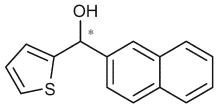
$C_{11}H_9BrOS$

(4-Bromophenyl)-(2′-thienyl)methanol

Ee = 92%
$[\alpha]_D^{20} = -17$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: unknown

Xiaodong Liu, Li Qiu, Liang Hong, Wenjing Yan, Rui Wang *

Tetrahedron: Asymmetry *20 (2009) 616*



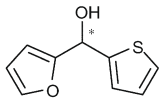
$C_{15}H_{12}OS$

(2-Naphthyl)-(2′-thienyl)methanol

Ee = 88%
$[\alpha]_D^{20} = -57$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: unknown

Xiaodong Liu, Li Qiu, Liang Hong, Wenjing Yan, Rui Wang *

Tetrahedron: Asymmetry *20 (2009) 616*



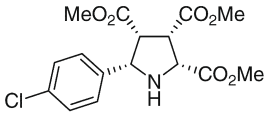
$C_9H_8O_2S$

(2-Furanyl)-(2′-thienyl)methanol

Ee = 82%
$[\alpha]_D^{20} = -11$ (*c* 1.7, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: unknown

Sai-Bo Yu, Xiang-Ping Hu *, Jun Deng, Dao-Yong Wang, Zheng-Chao Duan, Zhuo Zheng *

Tetrahedron: Asymmetry *20 (2009) 621*



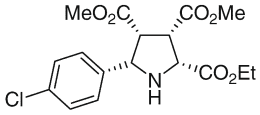
$C_{16}H_{18}ClNO_6$

Trimethyl (2*R*,3*S*,4*R*,5*S*)-5-(4-chlorophenyl)pyrrolidine-2,3,4-tricarboxylate

Ee = 95%
$[\alpha]_D^{22} = -33.8$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric catalysis
Absolute configuration: (2*R*,3*S*,4*R*,5*S*)

Sai-Bo Yu, Xiang-Ping Hu *, Jun Deng, Dao-Yong Wang, Zheng-Chao Duan, Zhuo Zheng *

Tetrahedron: Asymmetry *20 (2009) 621*



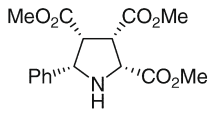
$C_{17}H_{20}ClNO_6$

(2*R*,3*S*,4*R*,5*S*)-5-(4-Chlorophenyl)pyrrolidine-2-carboxylic ethyl ester-3,4-dicarboxylic dimethyl ester

Ee = 90%
$[\alpha]_D^{22} = -40.9$ (*c* 1.2, $CHCl_3$)
Source of chirality: asymmetric catalysis
Absolute configuration: (2*R*,3*S*,4*R*,5*S*)

Sai-Bo Yu, Xiang-Ping Hu *, Jun Deng, Dao-Yong Wang, Zheng-Chao Duan, Zhuo Zheng *

Tetrahedron: Asymmetry *20 (2009) 621*



Ee = 84%
$[\alpha]_D^{23} = -58.0$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric catalysis
Absolute configuration: (2*R*,3*S*,4*R*,5*S*)

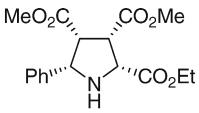
$C_{16}H_{19}NO_6$

Trimethyl (2*R*,3*S*,4*R*,5*S*)-5-phenylpyrrolidine-2,3,4-tricarboxylate

---

Sai-Bo Yu, Xiang-Ping Hu *, Jun Deng, Dao-Yong Wang, Zheng-Chao Duan, Zhuo Zheng *

Tetrahedron: Asymmetry *20 (2009) 621*



Ee = 85%
$[\alpha]_D^{23} = -48.3$ (*c* 0.9, $CHCl_3$)
Source of chirality: asymmetric catalysis
Absolute configuration: (2*R*,3*S*,4*R*,5*S*)

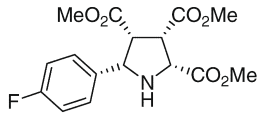
$C_{17}H_{21}NO_6$

(2*R*,3*S*,4*R*,5*S*)-5-Phenylpyrrolidine-2-carboxylic ethyl ester-3,4-dicarboxylic dimethyl ester

---

Sai-Bo Yu, Xiang-Ping Hu *, Jun Deng, Dao-Yong Wang, Zheng-Chao Duan, Zhuo Zheng *

Tetrahedron: Asymmetry *20 (2009) 621*



Ee = 87%
$[\alpha]_D^{23} = -58.4$ (*c* 1.1, $CHCl_3$)
Source of chirality: asymmetric catalysis
Absolute configuration: (2*R*,3*S*,4*R*,5*S*)

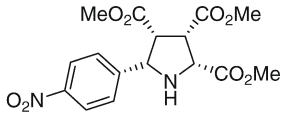
$C_{16}H_{18}FNO_6$

Trimethyl (2*R*,3*S*,4*R*,5*S*)-5-(4-fluorophenyl)pyrrolidine-2,3,4-tricarboxylate

---

Sai-Bo Yu, Xiang-Ping Hu *, Jun Deng, Dao-Yong Wang, Zheng-Chao Duan, Zhuo Zheng *

Tetrahedron: Asymmetry *20 (2009) 621*



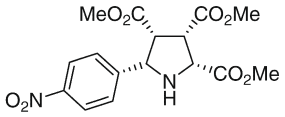
Ee = 94%
$[\alpha]_D^{23} = -47.2$ (*c* 0.8, $CHCl_3$)
Source of chirality: asymmetric catalysis
Absolute configuration: (2*R*,3*S*,4*R*,5*S*)

$C_{16}H_{18}BrNO_6$

Trimethyl (2*R*,3*S*,4*R*,5*S*)-5-(4-bromophenyl)pyrrolidine-2,3,4-tricarboxylate

Sai-Bo Yu, Xiang-Ping Hu *, Jun Deng, Dao-Yong Wang, Zheng-Chao Duan, Zhuo Zheng *

Tetrahedron: Asymmetry *20 (2009) 621*



Ee = 98%
$[\alpha]_D^{23} = -52.6$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric catalysis
Absolute configuration: (2*R*,3*S*,4*R*,5*S*)

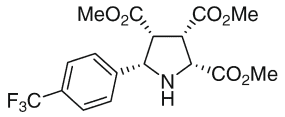
$C_{16}H_{18}N_2O_8$

Trimethyl (2*R*,3*S*,4*R*,5*S*)-5-(4-nitrophenyl)pyrrolidine-2,3,4-tricarboxylate

---

Sai-Bo Yu, Xiang-Ping Hu *, Jun Deng, Dao-Yong Wang, Zheng-Chao Duan, Zhuo Zheng *

Tetrahedron: Asymmetry *20 (2009) 621*



Ee = 99%
$[\alpha]_D^{23} = -39.5$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric catalysis
Absolute configuration: (2*R*,3*S*,4*R*,5*S*)

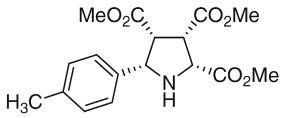
$C_{17}H_{18}F_3NO_6$

Trimethyl (2*R*,3*S*,4*R*,5*S*)-5-(4-trifluoromethylphenyl)pyrrolidine-2,3,4-tricarboxylate

---

Sai-Bo Yu, Xiang-Ping Hu *, Jun Deng, Dao-Yong Wang, Zheng-Chao Duan, Zhuo Zheng *

Tetrahedron: Asymmetry *20 (2009) 621*



Ee = 78%
$[\alpha]_D^{23} = -45.7$ (*c* 0.8, $CHCl_3$)
Source of chirality: asymmetric catalysis
Absolute configuration: (2*R*,3*S*,4*R*,5*S*)

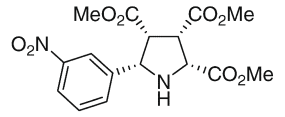
$C_{17}H_{21}NO_6$

Trimethyl (2*R*,3*S*,4*R*,5*S*)-5-(4-methylphenyl)pyrrolidine-2,3,4-tricarboxylate

---

Sai-Bo Yu, Xiang-Ping Hu *, Jun Deng, Dao-Yong Wang, Zheng-Chao Duan, Zhuo Zheng *

Tetrahedron: Asymmetry *20 (2009) 621*



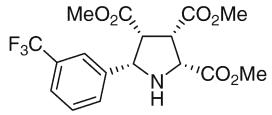
Ee = 90%
$[\alpha]_D^{23} = -51.6$ (*c* 1.2, $CHCl_3$)
Source of chirality: asymmetric catalysis
Absolute configuration: (2*R*,3*S*,4*R*,5*S*)

$C_{16}H_{18}N_2O_8$

Trimethyl (2*R*,3*S*,4*R*,5*S*)-5-(3-nitrophenyl)pyrrolidine-2,3,4-tricarboxylate

Sai-Bo Yu, Xiang-Ping Hu *, Jun Deng, Dao-Yong Wang, Zheng-Chao Duan, Zhuo Zheng *

Tetrahedron: Asymmetry *20 (2009) 621*



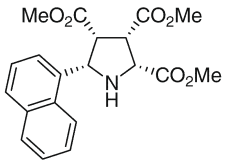
Ee = 90%
$[\alpha]_D^{23} = -47.7$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric catalysis
Absolute configuration: (2*R*,3*S*,4*R*,5*S*)

$C_{17}H_{18}F_3NO_6$

Trimethyl (2*R*,3*S*,4*R*,5*S*)-5-(3-trifluoromethylphenyl)pyrrolidine-2,3,4-tricarboxylate

Sai-Bo Yu, Xiang-Ping Hu *, Jun Deng, Dao-Yong Wang, Zheng-Chao Duan, Zhuo Zheng *

Tetrahedron: Asymmetry *20 (2009) 621*



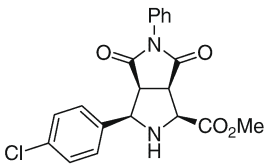
Ee = 90%
$[\alpha]_D^{23} = -38.1$ (*c* 0.9, $CHCl_3$)
Source of chirality: asymmetric catalysis
Absolute configuration: (2*R*,3*S*,4*R*,5*S*)

$C_{20}H_{21}NO_6$

Trimethyl (2*R*,3*S*,4*R*,5*S*)-5-(1-naphthyl)pyrrolidine-2, 3,4-tricarboxylate

Sai-Bo Yu, Xiang-Ping Hu *, Jun Deng, Dao-Yong Wang, Zheng-Chao Duan, Zhuo Zheng *

Tetrahedron: Asymmetry *20 (2009) 621*



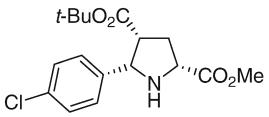
Ee = 36%
$[\alpha]_D^{20} = +47.4$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric catalysis
Absolute configuration: (1*S*,3*R*,3a*S*,6a*R*)

$C_{20}H_{17}ClN_2O_4$

Methyl (1*S*,3*R*,3a*S*,6a*R*)-3-(4-chlorophenyl)-4,6-dioxo-5-phenyloctahydropyrrolo[3,4-c]pyrrole-1-carboxylate

Sai-Bo Yu, Xiang-Ping Hu *, Jun Deng, Dao-Yong Wang, Zheng-Chao Duan, Zhuo Zheng *

Tetrahedron: Asymmetry *20 (2009) 621*



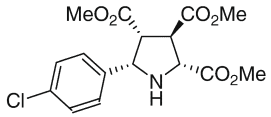
Ee = 24%
$[\alpha]_D^{23} = -2.2$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric catalysis
Absolute configuration: (2*R*,4*R*,5*S*)

$C_{17}H_{22}ClNO_4$

(2*R*,4*R*,5*S*)-5-(4-Chlorophenyl)-pyrrolidine-2,4-dicarboxylic acid 4-*tert*-butyl ester 2-methyl ester

Sai-Bo Yu, Xiang-Ping Hu *, Jun Deng, Dao-Yong Wang,
Zheng-Chao Duan, Zhuo Zheng *

Tetrahedron: Asymmetry *20 (2009) 621*



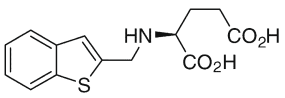
Ee = 84%
$[\alpha]_D^{22} = -11.4$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric catalysis
Absolute configuration: (2*R*,3*R*,4*R*,5*S*)

$C_{16}H_{18}ClNO_6$

Trimethyl (2*R*,3*R*,4*R*,5*S*)-5-(4-chlorophenyl)pyrrolidine-2,3,4-tricarboxylate

Peter Šafář, Jozefína Žúžiová, Štefan Marchalín *, Eva Tóthová, Nadežda Prónayová,
Ľubomír Švorc, Viktor Vrábel, Adam Daïch *

Tetrahedron: Asymmetry *20 (2009) 626*



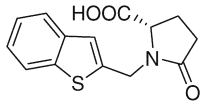
$[\alpha]_D^{20} = -31.8$ (*c* 1.0, MeOH)
Source of chirality: (*S*)-glutamic acid
Absolute configuration: (*S*)

$C_{14}H_{15}NO_4S$

(*S*)-*N*-(1-(Benzo[*b*]thien-2-ylmethyl)glutamic acid

Peter Šafář, Jozefína Žúžiová, Štefan Marchalín *, Eva Tóthová, Nadežda Prónayová,
Ľubomír Švorc, Viktor Vrábel, Adam Daïch *

Tetrahedron: Asymmetry *20 (2009) 626*



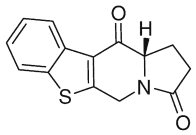
$[\alpha]_D^{20} = +53.8$ (*c* 1.0, MeOH)
Source of chirality: (*S*)-glutamic acid
Absolute configuration: (*S*)

$C_{14}H_{13}NO_3S$

(*S*)-1-(Benzo[*b*]thien-2-ylmethyl)-5-oxopyrrolidine-2-carboxylic acid

Peter Šafář, Jozefína Žúžiová, Štefan Marchalín *, Eva Tóthová, Nadežda Prónayová,
Ľubomír Švorc, Viktor Vrábel, Adam Daïch *

Tetrahedron: Asymmetry *20 (2009) 626*



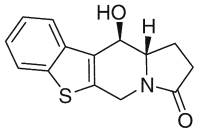
$[\alpha]_D^{20} = -64.5$ (*c* 1.0, CH_3COCH_3)
Source of chirality: (*S*)-glutamic acid
Absolute configuration: (11a*S*)

$C_{14}H_{11}NO_2S$

(11a*S*)-1,11a-Dihydro[1]benzothieno[2,3-*f*]indolizine-3,11(2*H*,5*H*)-dione

Peter Šafář, Jozefína Žúžiová, Štefan Marchalín *, Eva Tóthová, Nadežda Prónayová, Ľubomír Švorc, Viktor Vrábel, Adam Daïch *

Tetrahedron: Asymmetry *20 (2009) 626*



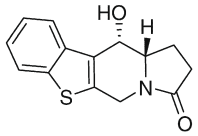
$[\alpha]_D^{20} = +56.8$ (*c* 1.0, MeOH)
Source of chirality: (*S*)-glutamic acid
Absolute configuration: (11*R*,11a*S*)

$C_{14}H_{13}NO_2S$

(11*R*,11a*S*)-11-Hydroxy-1,5,11,11a-tetrahydro[1]benzothieno[2,3-*f*]indolizin-3(2*H*)-one

Peter Šafář, Jozefína Žúžiová, Štefan Marchalín *, Eva Tóthová, Nadežda Prónayová, Ľubomír Švorc, Viktor Vrábel, Adam Daïch *

Tetrahedron: Asymmetry *20 (2009) 626*



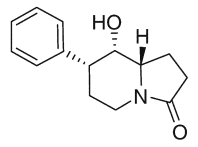
$[\alpha]_D^{20} = -9.4$ (*c* 1.0, MeOH)
Source of chirality: (*S*)-glutamic acid
Absolute configuration: (11*S*,11a*S*)

$C_{14}H_{13}NO_2S$

(11*S*,11a*S*)-11-Hydroxy-1,5,11,11a-tetrahydro[1]benzothieno[2,3-*f*]indolizin-3(2*H*)-one

Peter Šafář, Jozefína Žúžiová, Štefan Marchalín *, Eva Tóthová, Nadežda Prónayová, Ľubomír Švorc, Viktor Vrábel, Adam Daïch *

Tetrahedron: Asymmetry *20 (2009) 626*



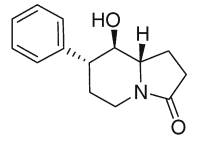
$[\alpha]_D^{20} = -142.2$ (*c* 1.0, MeOH)
Source of chirality: (*S*)-glutamic acid
Absolute configuration: (7*R*,8*S*,8a*S*)

$C_{14}H_{17}NO_2$

(7*R*,8*S*,8a*S*)-8-Hydroxy-7-phenylhexahydroindolizin-3(5*H*)-one

Peter Šafář, Jozefína Žúžiová, Štefan Marchalín *, Eva Tóthová, Nadežda Prónayová, Ľubomír Švorc, Viktor Vrábel, Adam Daïch *

Tetrahedron: Asymmetry *20 (2009) 626*



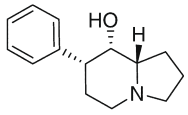
$[\alpha]_D^{20} = -73.2$ (*c* 1.0, MeOH)
Source of chirality: (*S*)-glutamic acid
Absolute configuration: (7*R*,8*R*,8a*S*)

$C_{14}H_{17}NO_2$

(7*R*,8*R*,8a*S*)-8-Hydroxy-7-phenylhexahydroindolizin-3(5*H*)-one

Peter Šafář, Jozefína Žúžiová, Štefan Marchalín *, Eva Tóthová, Nadežda Prónayová, Ľubomír Švorc, Viktor Vrábel, Adam Daïch *

Tetrahedron: Asymmetry *20 (2009) 626*



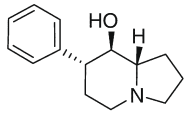
$[\alpha]_D^{20} = +0.9$ (*c* 1.0, MeOH)
Source of chirality: (*S*)-glutamic acid
Absolute configuration: (7*R*,8*S*,8a*S*)

$C_{14}H_{19}NO$

(7*R*,8*S*,8a*S*)-7-Phenyloctahydroindolizin-8-ol

Peter Šafář, Jozefína Žúžiová, Štefan Marchalín *, Eva Tóthová, Nadežda Prónayová, Ľubomír Švorc, Viktor Vrábel, Adam Daïch *

Tetrahedron: Asymmetry *20 (2009) 626*



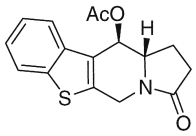
$[\alpha]_D^{20} = +7.5$ (*c* 1.0, MeOH)
Source of chirality: (*S*)-glutamic acid
Absolute configuration: (7*R*,8*R*,8a*S*)

$C_{14}H_{19}NO$

(7*R*,8*R*,8a*S*)-7-Phenyloctahydroindolizin-8-ol

Peter Šafář, Jozefína Žúžiová, Štefan Marchalín *, Eva Tóthová, Nadežda Prónayová, Ľubomír Švorc, Viktor Vrábel, Adam Daïch *

Tetrahedron: Asymmetry *20 (2009) 626*



$[\alpha]_D^{20} = +24.0$ (*c* 1.0, MeOH)
Source of chirality: (*S*)-glutamic acid
Absolute configuration: (11*R*,11a*S*)

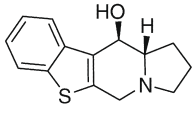
$C_{16}H_{15}NO_3S$

(11*R*,11a*S*)-3-Oxo-1,2,3,5,11,11a-hexahydro[1]benzothieno[2,3-*f*]indolizin-11-yl acetate

---

Peter Šafář, Jozefína Žúžiová, Štefan Marchalín *, Eva Tóthová, Nadežda Prónayová, Ľubomír Švorc, Viktor Vrábel, Adam Daïch *

Tetrahedron: Asymmetry *20 (2009) 626*



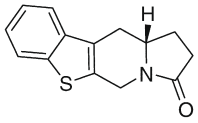
$[\alpha]_D^{20} = +140.4$ (*c* 1.0, MeOH)
Source of chirality: (*S*)-glutamic acid
Absolute configuration: (11*R*,11a*S*)

$C_{14}H_{15}NOS$

(11*R*,11a*S*)-1,2,3,5,11,11a-Hexahydro[1]benzothieno[2,3-*f*]indolizin-11-ol

Peter Šafář, Jozefína Žúžiová, Štefan Marchalín *, Eva Tóthová, Nadežda Prónayová, Ľubomír Švorc, Viktor Vrábel, Adam Daïch *

Tetrahedron: Asymmetry *20 (2009) 626*



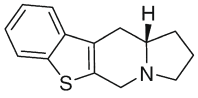
$[\alpha]_D^{20} = +73.5$ (*c* 1.0, MeOH)
Source of chirality: (*S*)-glutamic acid
Absolute configuration: (11a*S*)

$C_{14}H_{13}NOS$

(11a*S*)-1,5,11,11a-Tetrahydro[1]benzothieno[2,3-*f*]indolizin-3(2*H*)-one

Peter Šafář, Jozefína Žúžiová, Štefan Marchalín *, Eva Tóthová, Nadežda Prónayová, Ľubomír Švorc, Viktor Vrábel, Adam Daïch *

Tetrahedron: Asymmetry *20 (2009) 626*



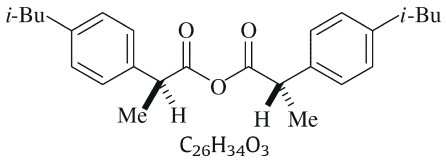
$[\alpha]_D^{20} = +118.4$ (*c* 1.0, MeOH)
Source of chirality: (*S*)-glutamic acid
Absolute configuration: (11a*S*)

$C_{14}H_{15}NS$

(11a*S*)-1,2,3,5,11,11a-Hexahydro[1]benzothieno[2,3-*f*]indolizine

Elliot Coulbeck, Jason Eames *

Tetrahedron: Asymmetry *20 (2009) 635*



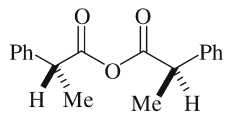
Ee >98%; de >98%
$[\alpha]_D^{20} = +60.8$ (*c* 3.6, $CHCl_3$)
Source of chirality: stereospecific synthesis
Absolute configuration: (*S*,*S*)

$C_{26}H_{34}O_3$

2-(4-Isopropylphenyl)propionic anhydride *anti*-

Elliot Coulbeck, Jason Eames *

Tetrahedron: Asymmetry *20 (2009) 635*



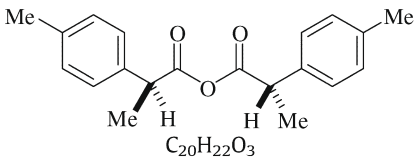
Ee >98%; de >98%
$[\alpha]_D^{20} = -101.0$ (*c* 3.2, $CHCl_3$)
Source of chirality: stereospecific coupling
Absolute configuration: (*R*,*R*)

$C_{18}H_{18}O_3$

2-Phenylpropionic anhydride *anti*-

Elliot Coulbeck, Jason Eames *

Tetrahedron: Asymmetry *20 (2009) 635*



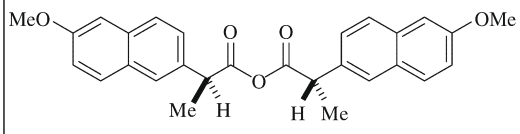
$C_{20}H_{22}O_3$

2-(4-Methylphenyl)propionic anhydride *anti*-

Ee >98%; de >98%
$[\alpha]_D^{20} = +83.8$ (*c* 1.6, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (*S*,*S*)

Elliot Coulbeck, Jason Eames *

Tetrahedron: Asymmetry *20 (2009) 635*



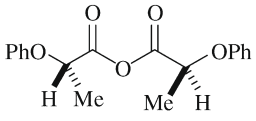
$C_{28}H_{26}O_5$

2-(6-Methoxy-naphthalene-2-yl)propionic anhydride *anti*-

Ee >98%; de >98%
$[\alpha]_D^{20} = +18.1$ (*c* 3.5, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (*S*,*S*)

Elliot Coulbeck, Jason Eames *

Tetrahedron: Asymmetry *20 (2009) 635*



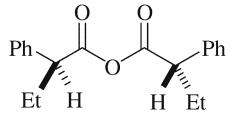
$C_{18}H_{18}O_5$

2-Phenoxypropionic anhydride *anti*-

Ee >98%; de >98%
$[\alpha]_D^{20} = -50.0$ (*c* 6.0, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (*S*,*S*)

Elliot Coulbeck, Jason Eames *

Tetrahedron: Asymmetry *20 (2009) 635*



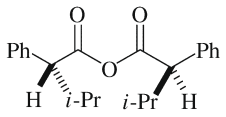
$C_{20}H_{22}O_3$

2-Phenylbutanoic anhydride *anti*-

Ee >98%; de >98%
$[\alpha]_D^{20} = +92.0$ (*c* 2.8, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (*S*,*S*)

Elliot Coulbeck, Jason Eames *

Tetrahedron: Asymmetry *20 (2009) 635*



$C_{22}H_{26}O_3$

2-Phenyl-3-methylbutanoic anhydride *anti*-

Ee >98%; de >98%
$[\alpha]_D^{20} = -31.1$ (*c* 4.6, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (*R*,*R*)