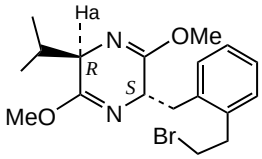
Arlette Solladié-Cavallo,* Luisa M. Martin-Cabrejas, Giorgio Caravatti and Marc Lang

Tetrahedron: Asymmetry *12 (2001) 967*



$C_{18}H_{25}BrN_2O_2$

2,5-Dihydro-5-isopropyl-3,6-dimethoxy-2-(2-bromoethyl)benzyl pyrazine

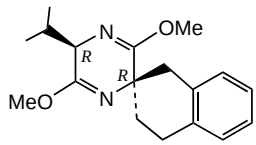
$[\alpha]_D = +19$ (c 3, $CHCl_3$)

Source of chirality: alkylation of (–)-(*R*)-isopropyl bislactim

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

Arlette Solladié-Cavallo,* Luisa M. Martin-Cabrejas, Giorgio Caravatti and Marc Lang

Tetrahedron: Asymmetry *12 (2001) 967*



$C_{18}H_{24}N_2O_2$

2-Hydro-2-isopropyl-3,6-dimethoxy-5-*spiro*-(2-tetrahydronaphthyl)pyrazine

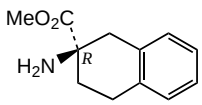
$[\alpha]_D^{20} = +2$ (c 1.7, $CHCl_3$)

Source of chirality: (–)-(*R*)-isopropyl bislactim

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

Arlette Solladié-Cavallo,* Luisa M. Martin-Cabrejas, Giorgio Caravatti and Marc Lang

Tetrahedron: Asymmetry *12 (2001) 967*



$C_{12}H_{15}NO_2$

2-Aminotetralin-2-carboxylic acid, methyl ester

Ee = ~98%

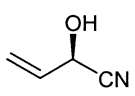
$[\alpha]_D^{20} = +20$ (c 1.2, EtOH); $[\alpha]_D^{20} = +17$ (c 1.01, MeOH)

Source of chirality: (–)-(*R*)-isopropyl bislactim via two consecutive alkylations

Absolute configuration: *R*

Pieter Jan Gerrits, Jan Marcus,* Lemonia Birikaki and Arne van der Gen

Tetrahedron: Asymmetry *12 (2001) 971*



C_4H_5NO

(*R*)-2-Hydroxy-3-butenenitrile

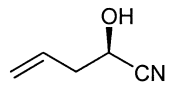
E.e. = 86% [by chiral HPLC after TBDPS protection (Chiralcel OD)]

Source of chirality: hydroxynitrile lyase enzyme (R-PaHNL) E.C. 4.1.2.10

Configuration: 2*R*

Pieter Jan Gerrits, Jan Marcus,* Lemonia Birikaki and Arne van der Gen

Tetrahedron: Asymmetry *12 (2001) 971*



C_5H_7NO

(*R*)-2-Hydroxy-4-pentenenitrile

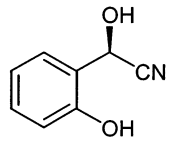
E.e. = 97% [by chiral HPLC after TBDPS protection (Chiralcel OD)]

Source of chirality: hydroxynitrile lyase enzyme (R-PaHNL) E.C. 4.1.2.10

Configuration: 2*R*

Pieter Jan Gerrits, Jan Marcus,* Lemonia Birikaki and Arne van der Gen

Tetrahedron: Asymmetry *12 (2001) 971*



$C_8H_7NO_2$

(*R*)-Hydroxy-(2-hydroxyphenyl)-acetonitrile

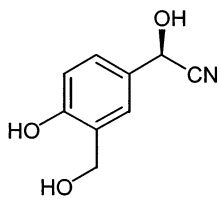
E.e. = 98% [determined by chiral HPLC (Chiralcel OD)]

Source of chirality: hydroxynitrile lyase enzyme (R-PaHNL) E.C. 4.1.2.10

Configuration: 2*R*

Pieter Jan Gerrits, Jan Marcus,* Lemonia Birikaki and Arne van der Gen

Tetrahedron: Asymmetry *12 (2001) 971*



$C_9H_9NO_3$

(*R*)-α-Hydroxy-(4-hydroxy-3-hydroxymethylphenyl)-acetonitrile

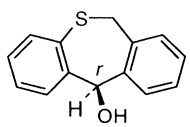
E.e. = 58% [determined by chiral HPLC (Chiralcel OD)]

Source of chirality: hydroxynitrile lyase enzyme (R-PaHNL) E.C. 4.1.2.10

Configuration: 2*R*

John E. G. Kemp,* Robert A. Bass, Jon Bordner, Peter E. Cross, Roger F. Gammon and Jennifer A. Price

Tetrahedron: Asymmetry *12 (2001) 975*



$C_{14}H_{12}OS$

(11*R*)-6,11-Dihydrodibenzo[*b*,*e*]thiepin-11-ol

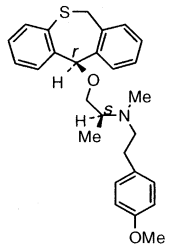
Ee >98%

$[\alpha]_D^{25} = +116$ ($c = 0.2\%$, MeOH)

Source of chirality: (+)-Noe-lactol derivative

John E. G. Kemp,* Robert A. Bass, Jon Bordner, Peter E. Cross, Roger F. Gammon and Jennifer A. Price

Tetrahedron: Asymmetry *12 (2001) 975*



$C_{27}H_{31}O_2NS$

(2*S*)-1-[(11*R*)-6-11-Dihydrodibenzo[*b*,*e*]thiepin-11-yloxy]-*N*-[2-(4-methoxyphenyl)ethyl]-*N*-methyl-2-propanamine

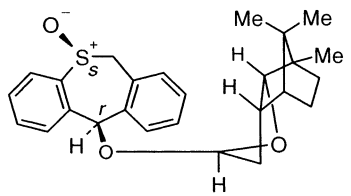
Ee >98.9%

$[\alpha]_D^{25} = +80$ ($c = 0.2\%$, MeOH)

Source of chirality: (+)-Noe-lactol derivative and thiepin diastereoisomers separated by MPLC

John E. G. Kemp,* Robert A. Bass, Jon Bordner, Peter E. Cross, Roger F. Gammon and Jennifer A. Price

Tetrahedron: Asymmetry *12 (2001) 975*



$C_{26}H_{30}O_3S$

(5*S*,11*R*)-5-Oxido-6-11-dihydrodibenzo[*b*,*e*]thiepin-11-yl (+)-Noe-lactyl ether

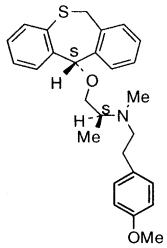
Ee >98%

$[\alpha]_D^{25} = +380$ ($c = 0.2\%$, THF)

Source of chirality: (+)-Noe-lactol and thiepin diastereoisomers separated by MPLC

John E. G. Kemp,* Robert A. Bass, Jon Bordner, Peter E. Cross, Roger F. Gammon and Jennifer A. Price

Tetrahedron: Asymmetry *12 (2001) 975*



$C_{27}H_{31}O_2NS$

(2*S*)-1-[(11*S*)-6-11-Dihydrodibenzo[*b*,*e*]thiepin-11-yloxy]-*N*-[2-(4-methoxyphenyl)ethyl]-*N*-methyl-2-propanamine

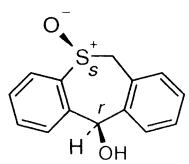
Ee >98.7%

$[\alpha]_D^{25} = -84$ ($c = 0.2\%$, MeOH)

Source of chirality: (+)-Noe-lactol derivative and thiepin diastereoisomers separated by MPLC

John E. G. Kemp,* Robert A. Bass, Jon Bordner, Peter E. Cross, Roger F. Gammon and Jennifer A. Price

Tetrahedron: Asymmetry *12 (2001) 975*



$C_{14}H_{12}O_2S$

(5*S*,11*R*)-5-Oxido-6-11-Dihydrodibenzo[*b*,*e*]thiepin-11-ol

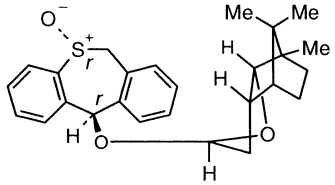
Ee >98%

$[\alpha]_D^{25} = +325$ ($c = 0.2\%$, MeOH)

Source of chirality: (+)-Noe-lactol derivatives of mixed thiepin diastereoisomers separated by MPLC then cleaved individually by TsOH/aq. THF

John E. G. Kemp,* Robert A. Bass, Jon Bordner, Peter E. Cross, Roger F. Gammon and Jennifer A. Price

Tetrahedron: Asymmetry *12 (2001) 975*



$C_{26}H_{30}O_3S$

(5*R*,11*R*)-5-Oxido-6-11-dihydrodibenzo[*b*,*e*]thiepin-11-yl (+)-Noe-lactyl ether

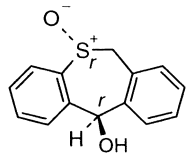
Ee >98%

$[\alpha]_D^{25} = -85.5$ ($c = 0.2\%$, THF)

Source of chirality: made from (+)-Noe-lactol and thiepin diastereoisomers separated by MPLC

John E. G. Kemp,* Robert A. Bass, Jon Bordner, Peter E. Cross, Roger F. Gammon and Jennifer A. Price

Tetrahedron: Asymmetry *12 (2001) 975*



$C_{14}H_{12}O_2S$

(5*R*,11*R*)-5-Oxido-6-11-dihydrodibenzo[*b*,*e*]thiepin-11-ol

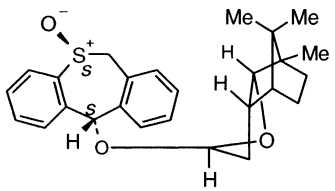
Ee >98%

$[\alpha]_D^{25} = -306$ ($c = 0.2\%$, MeOH)

Source of chirality: (+)-Noe-lactol derivatives of mixed thiepin diastereoisomers separated by MPLC then cleaved individually by TsOH/aq. THF

John E. G. Kemp,* Robert A. Bass, Jon Bordner, Peter E. Cross, Roger F. Gammon and Jennifer A. Price

Tetrahedron: Asymmetry *12 (2001) 975*



$C_{26}H_{30}O_3S$

(5*S*,11*S*)-5-Oxido-6-11-dihydrodibenzo[*b*,*e*]thiepin-11-yl (+)-Noe-lactyl ether

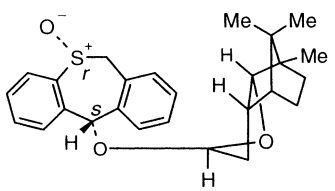
Ee >98%

$[\alpha]_D^{25} = -345$ ($c = 0.2\%$, THF)

Source of chirality: made from (+)-Noe-lactol and thiepin diastereoisomers separated by MPLC

John E. G. Kemp,* Robert A. Bass, Jon Bordner, Peter E. Cross, Roger F. Gammon and Jennifer A. Price

Tetrahedron: Asymmetry *12 (2001) 975*



$C_{26}H_{30}O_3S$

(5*R*,11*S*)-5-Oxido-6-11-dihydrodibenzo[*b*,*e*]thiepin-11-yl (+)-Noe-lactyl ether

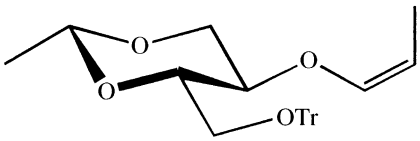
Ee >98%

$[\alpha]_D^{25} = -140$ ($c = 0.2\%$, THF)

Source of chirality: made from (+)-Noe-lactol and thiepin diastereoisomers separated by MPLC

Katarzyna Borsuk, Kinga Suwińska and Marek Chmielewski*

Tetrahedron: Asymmetry *12 (2001) 979*

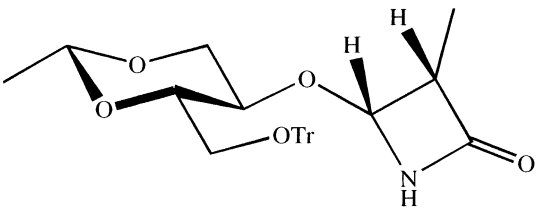


$[\alpha]_D^{22} = -3.1$ ($c = 0.4$, CH_2Cl_2)
Source of chirality: D-glucose
Absolute configuration: (2*R*,4*S*,5*R*)

$C_{28}H_{30}O_4$
(2*R*,4*S*,5*R*)-2-Methyl-4-trityloxymethyl-5-(*Z*)-propenyloxy-1,3-dioxane

Katarzyna Borsuk, Kinga Suwińska and Marek Chmielewski*

Tetrahedron: Asymmetry *12 (2001) 979*

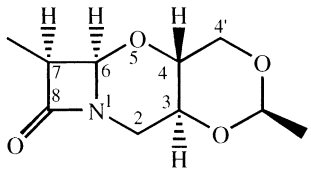


$[\alpha]_D^{22} = -19.2$ ($c = 0.4$, CH_2Cl_2)
Source of chirality: D-glucose
Absolute configuration: (2*R*,4*S*,5*R*,3′*S*,4′*R*)

$C_{29}H_{31}O_4N$
(2*R*,4*S*,5*R*,3′*S*,4′*R*)-2-Methyl-5-(3′-methyl-azetidin-2′-on-4′-oxy)-4-trityloxymethyl-1,3-dioxane

Katarzyna Borsuk, Kinga Suwińska and Marek Chmielewski*

Tetrahedron: Asymmetry *12 (2001) 979*

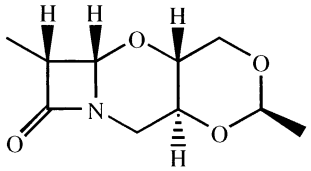


$[\alpha]_D^{22} = +111.5$ ($c = 0.6$, CH_2Cl_2)
Source of chirality: D-glucose
Absolute configuration: (3*S*,4*R*,6*R*,7*S*)

$C_{10}H_{15}O_4N$
(3*S*,4*R*,6*R*,7*S*)-5-Dethia-4,7-dimethyl-3,4′-(*R*)-methylmethylenedioxy-5-oxacepham

Katarzyna Borsuk, Kinga Suwińska and Marek Chmielewski*

Tetrahedron: Asymmetry *12 (2001) 979*

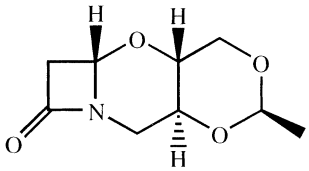


$[\alpha]_D^{22} = -16.0$ ($c = 0.5$, CH_2Cl_2)
Source of chirality: D-glucose
Absolute configuration: (3*S*,4*R*,6*S*,7*R*)

$C_{10}H_{15}O_4N$
(3*S*,4*R*,6*S*,7*R*)-5-Dethia-4,7-dimethyl-3,4′-(*R*)-methylmethylenedioxy-5-oxacepham

Katarzyna Borsuk, Kinga Suwińska and Marek Chmielewski*

Tetrahedron: Asymmetry *12 (2001) 979*



$C_9H_{13}O_4N$

(3*S*,4*R*,6*S*)-5-Dethia-4-methyl-3,4′-(*R*)-methylmethylenedioxy-5-oxacepham

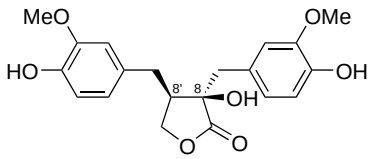
$[\alpha]_D^{22} = -71.9$ ($c = 0.3$, CH_2Cl_2)

Source of chirality: D-glucose

Absolute configuration: (3*S*,4*R*,6*S*)

Michael Sefkow

Tetrahedron: Asymmetry *12 (2001) 987*



$C_{20}H_{20}O_7$

(*R*,*R*)-(+)-Wikstromol

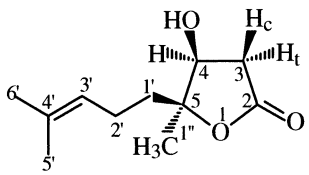
Ee>98%

Source of chirality: (*R*)-malic acid

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

Carmen I. Viturro, Marta S. Maier,* Carlos A. Stortz and Juana R. de la Fuente

Tetrahedron: Asymmetry *12 (2001) 991*



$C_{11}H_{18}O_3$

(4*S*,5*S*)-5-(4′-Methyl-3′-pentenyl)-4-hydroxy-5-methyldihydrofuran-2-one

Ee = 100%

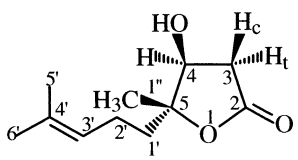
$[\alpha]_D^{20} = -24.5$ (c 0.22, $CHCl_3$)

Source of chirality: natural product isolated from *Mutisia friesiana*

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

Carmen I. Viturro, Marta S. Maier,* Carlos A. Stortz and Juana R. de la Fuente

Tetrahedron: Asymmetry *12 (2001) 991*



$C_{11}H_{18}O_3$

(4*S*,5*R*)-5-(4′-Methyl-3′-pentenyl)-4-hydroxy-5-methyldihydrofuran-2-one

Ee = 100%

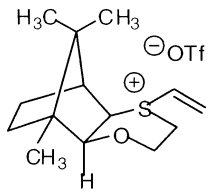
$[\alpha]_D^{20} = -10.0$ (c 0.24, $CHCl_3$)

Source of chirality: natural product isolated from *Mutisia friesiana*

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

Kyung-hee Kim and Leslie S. Jimenez*

Tetrahedron: Asymmetry *12 (2001) 999*



$C_{15}H_{23}F_3O_4S_2$

[(1*R*,2*S*,7*R*,8*S*)-*exo*]-6-Ethenyl-1,11,11-trimethyl-3-oxa-6-thiatricyclo-[6.2.1.0^{2,7}]undecanium trifluoromethanesulfonate

Ee = 100%

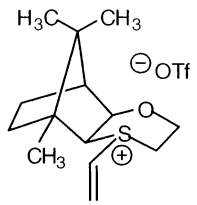
$[\alpha]_D^{24} = +18$ (*c* 0.012, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (1*R*,2*S*,7*R*,8*S*)

Kyung-hee Kim and Leslie S. Jimenez*

Tetrahedron: Asymmetry *12 (2001) 999*



$C_{15}H_{23}F_3O_4S_2$

[(1*R*,2*S*,7*R*,8*S*)-*exo*]-3-Ethenyl-1,11,11-trimethyl-6-oxa-3-thiatricyclo-[6.2.1.0^{2,7}]undecanium trifluoromethanesulfonate

Ee = 100%

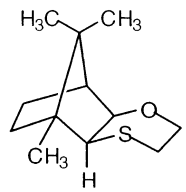
$[\alpha]_D^{24} = +27$ (*c* 0.0060, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (1*R*,2*S*,7*R*,8*S*)

Kyung-hee Kim and Leslie S. Jimenez*

Tetrahedron: Asymmetry *12 (2001) 999*



$C_{12}H_{20}OS$

[(1*R*,2*S*,7*R*,8*S*)-*exo*]-1,11,11-Trimethyl-6-oxa-3-thiatricyclo[6.2.1.0^{2,7}]undecane

Ee = 100%

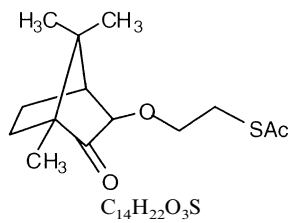
$[\alpha]_D^{24} = +12$ (*c* 0.012, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (1*R*,2*S*,7*R*,8*S*)

Kyung-hee Kim and Leslie S. Jimenez*

Tetrahedron: Asymmetry *12 (2001) 999*



$C_{14}H_{22}O_3S$

[(1*R*,3*R*,4*S*)-*exo*]-3-(2-Thioacetylethoxy)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-one

Ee = 100%

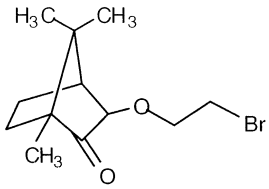
$[\alpha]_D^{24} = +61$ (*c* 0.014, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (1*R*,3*R*,4*S*)

Kyung-hee Kim and Leslie S. Jimenez*

Tetrahedron: Asymmetry *12 (2001) 999*



$C_{12}H_{19}BrO_2$

[(1*R*,3*R*,4*S*)-*exo*]-3-(2-Bromoethoxy)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-one

Ee = 100%

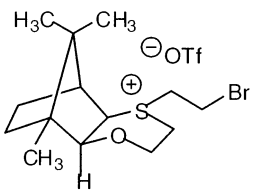
$[\alpha]_D^{24} = +83$ (*c* 0.010, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (1*R*,3*R*,4*S*)

Kyung-hee Kim and Leslie S. Jimenez*

Tetrahedron: Asymmetry *12 (2001) 999*



$C_{15}H_{24}BrF_3O_4S_2$

[(1*R*,2*S*,7*R*,8*S*)-*exo*]-6-(2-Bromoethyl)-1,11,11-trimethyl-3-oxa-6-thiatricyclo[6.2.1.$0^{2,7}$]undecanium trifluoromethanesulfonate

Ee = 100%

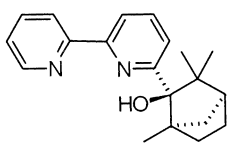
$[\alpha]_D^{24} = +57$ (*c* 0.0090, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (1*R*,2*S*,7*R*,8*S*)

Wing-Sze Lee, Hoi-Lun Kwong,* Hoi-Ling Chan, Wing-Wai Choi and Lai-Yuen Ng

Tetrahedron: Asymmetry *12 (2001) 1007*



$C_{20}H_{24}N_2O$

6-[2-Hydroxy-1,3,3-trimethylbicyclo[2.2.1]hept-2-yl]-2,2′-bipyridine

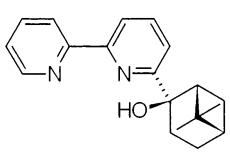
$[\alpha]_D^{25} = -60.0$ (*c* 0.52, CCl_4)

Source of chirality: (1*R*)-(−)-fenchone

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

Wing-Sze Lee, Hoi-Lun Kwong,* Hoi-Ling Chan, Wing-Wai Choi and Lai-Yuen Ng

Tetrahedron: Asymmetry *12 (2001) 1007*



$C_{19}H_{22}N_2O$

6-(2-Hydroxy-6,6-dimethylbicyclo[3.1.1]hept-2-yl)-2,2′-bipyridine

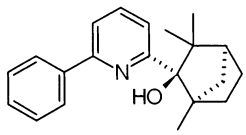
$[\alpha]_D^{25} = -19.4$ (*c* 0.51, CCl_4)

Source of chirality: (1*R*)-(+)-nopinone

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

Wing-Sze Lee, Hoi-Lun Kwong,* Hoi-Ling Chan, Wing-Wai Choi and Lai-Yuen Ng

Tetrahedron: Asymmetry *12 (2001) 1007*



$C_{21}H_{24}NO$

2-[2-Hydroxy-1,3,3-trimethylbicyclo[2.2.1]hept-2-yl]-6-phenylpyridine

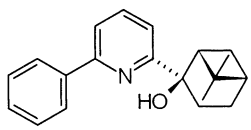
$[\alpha]_D^{25} = -71.2$ (c 0.51, CCl_4)

Source of chirality: (1*R*)-(−)-fenchone

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

Wing-Sze Lee, Hoi-Lun Kwong,* Hoi-Ling Chan, Wing-Wai Choi and Lai-Yuen Ng

Tetrahedron: Asymmetry *12 (2001) 1007*



$C_{20}H_{23}NO$

2-(2-Hydroxy-6,6-dimethylbicyclo[3.1.1]hept-2-yl)-6-phenylpyridine

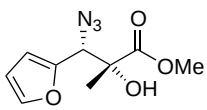
$[\alpha]_D^{25} = -35.4$ (c 0.52, CCl_4)

Source of chirality: (1*R*)-(+)-nopinone

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

Arturo Battaglia,* Gaetano Barbaro, Patrizia Giorgianni, Andrea Guerrini and Antonella Pepe

Tetrahedron: Asymmetry *12 (2001) 1015*



$C_9H_{11}N_3O_4$

(2*R*,3*S*)-3-Azido-3-furan-2-yl-2-hydroxy-2-methylpropionic acid methyl ester

Ee = 94% [^{1}H NMR with Yt(hfc)$_3$]

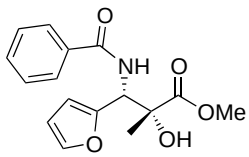
$[\alpha]_D^{20} = +86.0$ (c 1.0, $CHCl_3$)

Source of chirality: (2*S*,5*R*,1′*S*)-1′-(Azidophenylmethyl)-2-*tert*-butyl-2,5-dimethyl-[1,3]-dioxolan-4-one

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

Arturo Battaglia,* Gaetano Barbaro, Patrizia Giorgianni, Andrea Guerrini and Antonella Pepe

Tetrahedron: Asymmetry *12 (2001) 1015*



$C_{16}H_{17}NO_5$

(2*R*,3*S*)-3-Benzoylamino-3-furan-2-yl-2-hydroxy-2-methylpropionic acid methyl ester

Ee = 94% [^{1}H NMR with Yt(hfc)$_3$]

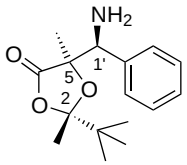
$[\alpha]_D^{20} = -3.76$ (c 1.38, $CHCl_3$)

Source of chirality: (2*R*,3*S*)-3-Azido-3-furan-2-yl-2-hydroxy-2-methylpropionic acid methyl ester

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

Arturo Battaglia,* Gaetano Barbaro, Patrizia Giorgianni, Andrea Guerrini and Antonella Pepe

Tetrahedron: Asymmetry *12 (2001) 1015*



$C_{16}H_{23}NO_3$

(2*S*,5*R*,1′*S*)-1′-(Aminophenylmethyl)-2-*tert*-butyl-2,5-dimethyl-[1,3]-dioxolan-4-one

Ee = 86% [Chiracel OD column]

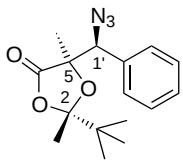
$[\alpha]_D^{20} = +49.0$ (*c* 0.7, $CHCl_3$)

Source of chirality: (2*S*,5*R*,1′*S*)-1′-(Azidophenylmethyl)-2-*tert*-butyl-2,5-dimethyl-[1,3]-dioxolan-4-one

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

Arturo Battaglia,* Gaetano Barbaro, Patrizia Giorgianni, Andrea Guerrini and Antonella Pepe

Tetrahedron: Asymmetry *12 (2001) 1015*



$C_{16}H_{21}N_3O_3$

(2*S*,5*R*,1′*S*)-1′-(Azidophenylmethyl)-2-*tert*-butyl-2,5-dimethyl-[1,3]-dioxolan-4-one

Ee = 86% [^{1}H NMR with Yt(hfc)$_3$]

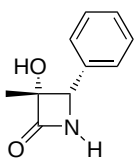
$[\alpha]_D^{20} = +163.8$ (*c* 0.6, $CHCl_3$)

Source of chirality: (2*S*,5*R*,1′*R*)-2-*tert*-Butyl-5-(hydroxyphenylmethyl)-2,5-dimethyl-[1,3]-dioxolan-4-one

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

Arturo Battaglia,* Gaetano Barbaro, Patrizia Giorgianni, Andrea Guerrini and Antonella Pepe

Tetrahedron: Asymmetry *12 (2001) 1015*



$C_{10}H_{11}NO_2$

(3*R*,4*S*)-4-Phenyl-3-hydroxy-3-methylazetidin-2-one

Ee = 86% [Chiracel OD column]

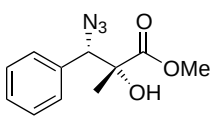
$[\alpha]_D^{20} = +101$ (*c* 0.5, CD_3COCD_3)

Source of chirality: (2*S*,5*R*,1′*S*)-1′-(Aminophenylmethyl)-2-*tert*-butyl-2,5-dimethyl-[1,3]-dioxolan-4-one

Absolute configuration: (3*R*,4*S*)

Arturo Battaglia,* Gaetano Barbaro, Patrizia Giorgianni, Andrea Guerrini and Antonella Pepe

Tetrahedron: Asymmetry *12 (2001) 1015*



$C_{11}H_{13}N_3O_3$

(2*R*,3*S*)-3-Azido-2-hydroxy-2-methyl-3-phenylpropionic acid methyl ester

Ee = 86% [^{1}H NMR with Yt(hfc)$_3$]

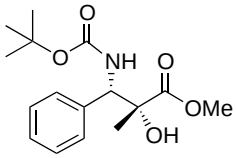
$[\alpha]_D^{20} = +114.5$ (*c* 0.7, $CHCl_3$)

Source of chirality: (2*S*,5*R*,1′*S*)-1′-(Azidophenylmethyl)-2-*tert*-butyl-2,5-dimethyl-[1,3]-dioxolan-4-one

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

Arturo Battaglia,* Gaetano Barbaro, Patrizia Giorgianni, Andrea Guerrini and Antonella Pepe

Tetrahedron: Asymmetry *12 (2001) 1015*



$C_{16}H_{23}NO_5$

(2*R*,3*S*)-3-(*tert*-Butoxycarbonylamino)-2-hydroxy-2-methyl-3-phenylpropionic acid methyl ester

Ee = 86% [chemical correlation]

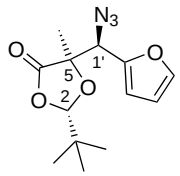
$[\alpha]_D^{20} = -5.5$ (*c* 0.7, $CHCl_3$)

Source of chirality: (2*R*,3*S*)-3-Azido-2-hydroxy-2-methyl-3-phenylpropionic acid methyl ester

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

Arturo Battaglia,* Gaetano Barbaro, Patrizia Giorgianni, Andrea Guerrini and Antonella Pepe

Tetrahedron: Asymmetry *12 (2001) 1015*



$C_{13}H_{17}N_3O_4$

(2*S*,5*R*,1′*S*)-1′-(Azidofuran-2-yl-methyl)-2-*tert*-butyl-5-methyl-[1,3]-dioxolan-4-one

Ee = 94% [^{1}H NMR with Yt(hfc)$_3$]

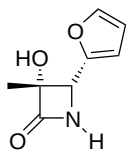
$[\alpha]_D^{20} = -1.98$ (*c* 0.53, $CHCl_3$)

Source of chirality: (2*S*,5*R*,1′*R*)-2-*tert*-Butyl-5-(furan-2-yl-hydroxymethyl)-5-methyl-[1,3]-dioxolan-4-one

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

Arturo Battaglia,* Gaetano Barbaro, Patrizia Giorgianni, Andrea Guerrini and Antonella Pepe

Tetrahedron: Asymmetry *12 (2001) 1015*



$C_8H_9NO_3$

(3*R*,4*S*)-4-Furan-2-yl-3-hydroxy-3-methylazetidin-2-one

Ee = 94% [Chiracel OD column]

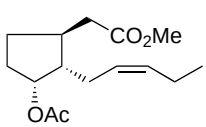
$[\alpha]_D^{20} = +70$ (*c* 0.3, CH_3COCH_3)

Source of chirality: (2*S*,5*R*,1′*S*)-1-(Aminofuran-2-yl-methyl)-2-*tert*-butyl-5-methyl-[1,3]-dioxolan-4-one

Absolute configuration: (3*R*,4*S*)

Hiromasa Kiyota,* Emi Higashi, Takanori Koike and Takayuki Oritani

Tetrahedron: Asymmetry *12 (2001) 1035*



$C_{15}H_{24}O_4$

Methyl 3-acetoxy-2-[(*Z*)-2′-pentenyl]cyclopentaneacetate(methyl 6-*O*-acetyl-7-epicucurbate)

E.e. = 98.6%

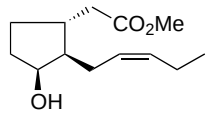
$[\alpha]_D^{19} = -97.9$ (*c* 0.985, $CHCl_3$)

Source of chirality: lipase catalyst

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

Hiromasa Kiyota,* Emi Higashi, Takanori Koike and Takayuki Oritani

Tetrahedron: Asymmetry *12 (2001) 1035*

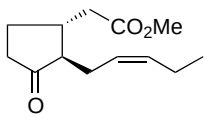


E.e. = 99.1%
$[\alpha]_D^{22} = +73.4$ (*c* 1.20, $CHCl_3$)
Source of chirality: lipase catalyst
Absolute configuration: (1*R*,2*R*,3*S*)

$C_{13}H_{22}O_3$
Methyl 3-hydroxy-2-[(*Z*)-2′-pentenyl]cyclopentaneacetate(methyl 7-epicucurbate)

Hiromasa Kiyota,* Emi Higashi, Takanori Koike and Takayuki Oritani

Tetrahedron: Asymmetry *12 (2001) 1035*



E.e. = 99.1%
$[\alpha]_D^{22} = -94.4$ (*c* 1.26, MeOH)
Source of chirality: lipase catalyst
Absolute configuration: (1*R*,2*R*)

$C_{13}H_{20}O_3$
Methyl 3-oxo-2-[(*Z*)-2′-pentenyl]cyclopentaneacetate(methyl jasmonate)

Cristina Forzato, Raffaella Gandolfi, Francesco Molinari, Patrizia Nitti, Giuliana Pitacco and Ennio Valentin*

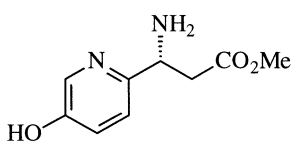
Tetrahedron: Asymmetry *12 (2001) 1039*

Ee = 94% (by chiral HRGC)
$[\alpha]_D^{25} = -40.5$ (*c* 0.98, MeOH)
Source of chirality: yeast reduction
Absolute configuration: (4a*R*,8a*S*)

$C_9H_{14}O_2$
trans-(4a*R*,8a*S*)-(−)-Octahydro-2*H*-1-benzopyran-2-one

Maciej Adamczyk* and Rajarathnam E. Reddy

Tetrahedron: Asymmetry *12 (2001) 1047*

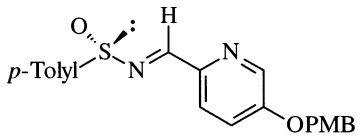


Ee >97%
$[\alpha]_D^{23}$ +3.4 (*c* 0.62, MeOH)
Source of chirality: chiral starting material
Absolute configuration: (*R*)

$C_9H_{13}N_2O_3$
(*R*)-(+)-Methyl 3-(5-hydroxy-2-pyridinyl)propanoate

Maciej Adamczyk* and Rajarathnam E. Reddy

Tetrahedron: Asymmetry *12 (2001) 1047*



$C_{21}H_{21}N_2SO_3$

(*S*)-(+)-*N*-((1*E*)-{5-[(4-Methoxybenzyl)oxy]-2-pyridinyl}methylidene)-4-methylbenzenesulfinamide

Ee >97%

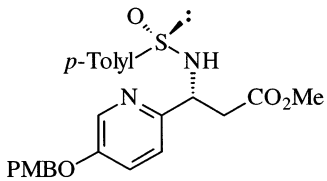
$[\alpha]_D^{23}$ +42.3 (*c* 0.97, $CHCl_3$)

Source of chirality: chiral starting material

Absolute configuration: (*S*)

Maciej Adamczyk* and Rajarathnam E. Reddy

Tetrahedron: Asymmetry *12 (2001) 1047*



$C_{24}H_{27}N_2SO_5$

(S_s,*R*)-(+)-Methyl 3-{5-[(4-methoxybenzyl)oxy]-2-pyridinyl}-3-{[(4-methylphenyl)sulfinyl]amino}propanoate

Ee >97%

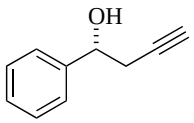
$[\alpha]_D^{23}$ +165.6 (*c* 0.61, $CHCl_3$)

Source of chirality: chiral starting material

Absolute configuration: (S_s,*R*)

Marco Bandini, Pier G. Cozzi,* Paolo Melchiorre, Roberta Tino and Achille Umani-Ronchi*

Tetrahedron: Asymmetry *12 (2001) 1063*



$C_{10}H_{10}O$

(*R*)-1-Phenyl-3-butyn-1-ol

E.e. = 56%

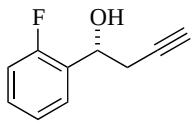
$[\alpha]_D$ = +26.0 (*c* 2.5, $CHCl_3$)

Source of chirality: asymmetric catalysis

Absolute configuration: 1*R*

Marco Bandini, Pier G. Cozzi,* Paolo Melchiorre, Roberta Tino and Achille Umani-Ronchi*

Tetrahedron: Asymmetry *12 (2001) 1063*



$C_{10}H_9OF$

(*R*)-1-(2-Fluorophenyl)-3-butyn-1-ol

E.e. = 35%

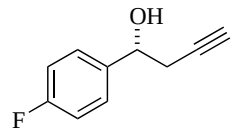
$[\alpha]_D$ = +9.8 (*c* 0.5, $CHCl_3$)

Source of chirality: asymmetric catalysis

Absolute configuration: 1*R*

Marco Bandini, Pier G. Cozzi,* Paolo Melchiorre, Roberta Tino and Achille Umani-Ronchi*

Tetrahedron: Asymmetry *12 (2001) 1063*



$C_{10}H_9OF$

(*R*)-1-(4-Fluorophenyl)-3-butyn-1-ol

E.e. = 56%

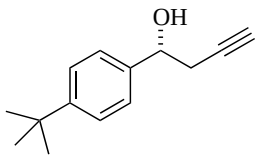
$[\alpha]_D = +20.3$ (*c* 0.7, $CHCl_3$)

Source of chirality: asymmetric catalysis

Absolute configuration: 1*R*

Marco Bandini, Pier G. Cozzi,* Paolo Melchiorre, Roberta Tino and Achille Umani-Ronchi*

Tetrahedron: Asymmetry *12 (2001) 1063*



$C_{14}H_{18}O$

(*R*)-1-(4-*tert*-Butylphenyl)-3-butyn-1-ol

E.e. = 45%

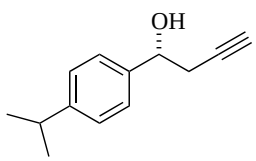
$[\alpha]_D = +12.1$ (*c* 0.59, $CHCl_3$)

Source of chirality: asymmetric catalysis

Absolute configuration: 1*R*

Marco Bandini, Pier G. Cozzi,* Paolo Melchiorre, Roberta Tino and Achille Umani-Ronchi*

Tetrahedron: Asymmetry *12 (2001) 1063*



$C_{13}H_{16}O$

(*R*)-1-(4-*Iso*-Propylphenyl)-3-butyn-1-ol

E.e. = 43%

$[\alpha]_D = +5.0$ (*c* 1.0, $CHCl_3$)

Source of chirality: asymmetric catalysis

Absolute configuration: 1*R*

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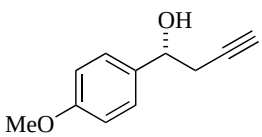
Tetrahedron: Asymmetry *12 (2001) 1063*



$C_{11}H_{12}O_2$

(*R*)-1-(4-Methoxyphenyl)-3-butyn-1-ol

E.e. = 28%

$[\alpha]_D = +11.0$ (*c* 1.0, $CHCl_3$)

Source of chirality: asymmetric catalysis

Absolute configuration: 1*R*

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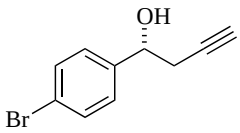
Tetrahedron: Asymmetry *12 (2001) 1063*



$C_{10}H_9BrO$

(*R*)-1-(4-Bromophenyl)-3-butyn-1-ol

E.e. = 22%

$[\alpha]_D = -0.59$ (*c* 0.68, $CHCl_3$)

Source of chirality: asymmetric catalysis

Absolute configuration: 1*R*

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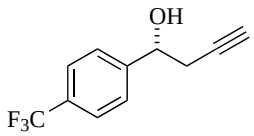
Tetrahedron: Asymmetry *12 (2001) 1063*



$C_{11}H_9F_3O$

(*R*)-1-[4-(Trifluoromethyl)phenyl]-3-butyn-1-ol

E.e. = 27%

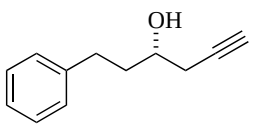
$[\alpha]_D = +5.0$ (*c* 1.0, $CHCl_3$)

Source of chirality: asymmetric catalysis

Absolute configuration: 1*R*

Marco Bandini, Pier G. Cozzi,* Paolo Melchiorre, Roberta Tino and Achille Umani-Ronchi*

Tetrahedron: Asymmetry *12 (2001) 1063*



$C_{12}H_{14}O$

(*R*)-1-Phenyl-5-esyn-3-ol

E.e. = 15%

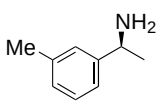
$[\alpha]_D = +3.5$ (*c* 0.56, $CHCl_3$)

Source of chirality: asymmetric catalysis

Absolute configuration: 1*R*

Marco Pallavicini,* Ermanno Valoti, Luigi Villa and Oreste Piccolo

Tetrahedron: Asymmetry *12 (2001) 1071*



$C_9H_{13}N$

(*S*)-1-(3-Methylphenyl)ethylamine

Ee = 98.9%

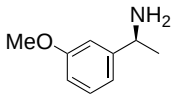
$\alpha_D^{25} = -31.0$ (neat)

Source of chirality: chemical resolution with (*R*)-isopropylidene glycerol hydrogen phthalate

Absolute configuration: *S*

Marco Pallavicini,* Ermanno Valoti, Luigi Villa and Oreste Piccolo

Tetrahedron: Asymmetry *12 (2001) 1071*



$C_9H_{13}NO$

(*S*)-1-(3-Methoxyphenyl)ethylamine

Ee = 97.5%

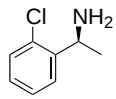
$[\alpha]_D^{20} = -22.3$ (*c* 2, MeOH)

Source of chirality: chemical resolution with (*S*)-isopropylidene glycerol hydrogen phthalate

Absolute configuration: *S*

Marco Pallavicini,* Ermanno Valoti, Luigi Villa and Oreste Piccolo

Tetrahedron: Asymmetry *12 (2001) 1071*



$C_8H_{10}ClN$

(*S*)-1-(2-Chlorophenyl)ethylamine

Ee >99.6%

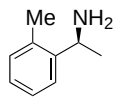
$\alpha_D^{26} = -57.4$ (neat)

Source of chirality: chemical resolution with (*S*)-isopropylidene glycerol hydrogen phthalate

Absolute configuration: *S*

Marco Pallavicini,* Ermanno Valoti, Luigi Villa and Oreste Piccolo

Tetrahedron: Asymmetry *12 (2001) 1071*



$C_9H_{13}N$

(*S*)-1-(2-Methylphenyl)ethylamine

Ee = 97.7%

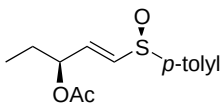
$\alpha_D^{25} = -60.7$ (neat)

Source of chirality: chemical resolution with (*S*)-isopropylidene glycerol hydrogen phthalate

Absolute configuration: *S*

Victor Guerrero de la Rosa, Mario Ordóñez and José Manuel Llera*

Tetrahedron: Asymmetry *12 (2001) 1089*



$C_{14}H_{18}O_3S$

(R_S,S_C)-(*E*)-3-Acetoxy-1-(*p*-tolylsulfinyl)-1-pentene

E.e. ≥96%

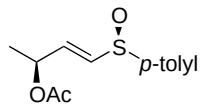
$[\alpha]_D$ +155 (c = 2.4, $CHCl_3$)

Source of chirality: asymmetric synthesis and enzymatic resolution

Absolute configuration: (R_S,S_C)

Victor Guerrero de la Rosa, Mario Ordóñez and José Manuel Llera*

Tetrahedron: Asymmetry *12 (2001) 1089*



E.e. ≥96%

$[\alpha]_D$ +172.5 (c=1.5, $CHCl_3$)

Source of chirality: asymmetric synthesis and enzymatic resolution

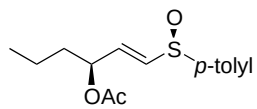
Absolute configuration: (R_S,S_C)

$C_{13}H_{16}O_3S$

(R_S,S_C)-(*E*)-3-Acetoxy-1-(*p*-tolylsulfinyl)-1-butene

Victor Guerrero de la Rosa, Mario Ordóñez and José Manuel Llera*

Tetrahedron: Asymmetry *12 (2001) 1089*



E.e. ≥96%

$[\alpha]_D$ +163.5 (c=2.7, $CHCl_3$)

Source of chirality: asymmetric synthesis and enzymatic resolution

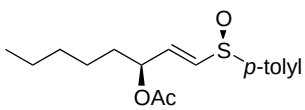
Absolute configuration: (R_S,S_C)

$C_{15}H_{20}O_3S$

(R_S,S_C)-(*E*)-3-Acetoxy-1-(*p*-tolylsulfinyl)-1-hexene

Victor Guerrero de la Rosa, Mario Ordóñez and José Manuel Llera*

Tetrahedron: Asymmetry *12 (2001) 1089*



E.e. ≥96%

$[\alpha]_D$ +120.5 (c=1.0, $CHCl_3$)

Source of chirality: asymmetric synthesis and enzymatic resolution

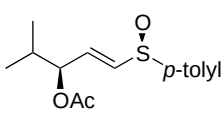
Absolute configuration: (R_S,S_C)

$C_{17}H_{24}O_3S$

(R_S,S_C)-(*E*)-3-Acetoxy-1-(*p*-tolylsulfinyl)-1-octene

Victor Guerrero de la Rosa, Mario Ordóñez and José Manuel Llera*

Tetrahedron: Asymmetry *12 (2001) 1089*



E.e. ≥96%

$[\alpha]_D$ +173 (c=2.4, $CHCl_3$)

Source of chirality: asymmetric synthesis and enzymatic resolution

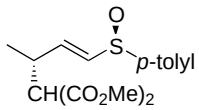
Absolute configuration: (R_S,S_C)

$C_{15}H_{20}O_3S$

(R_S,S_C)-(*E*)-3-Acetoxy-4-methyl-1-(*p*-tolylsulfinyl)-1-pentene

Victor Guerrero de la Rosa, Mario Ordóñez and José Manuel Llera*

Tetrahedron: Asymmetry *12 (2001) 1089*



E.e. ≥96%

$[\alpha]_D$ +119 (c=4.7, $CHCl_3$)

Source of chirality: asymmetric synthesis and enzymatic resolution

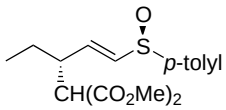
Absolute configuration: (R_S,S_C)

$C_{16}H_{20}O_5S$

Methyl (R_S,S_C)-(*E*)-2-methoxycarbonyl-3-methyl-5-(*p*-tolylsulfinyl)-4-pentenoate

Victor Guerrero de la Rosa, Mario Ordóñez and José Manuel Llera*

Tetrahedron: Asymmetry *12 (2001) 1089*



E.e. ≥96%

$[\alpha]_D$ +95.7 (c=2.8, $CHCl_3$)

Source of chirality: asymmetric synthesis and enzymatic resolution

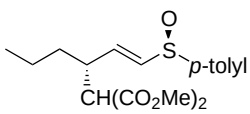
Absolute configuration: (R_S,S_C)

$C_{17}H_{22}O_5S$

Methyl (R_S,S_C)-(*E*)-2-methoxycarbonyl-3-ethyl-5-(*p*-tolylsulfinyl)-4-pentenoate

Victor Guerrero de la Rosa, Mario Ordóñez and José Manuel Llera*

Tetrahedron: Asymmetry *12 (2001) 1089*



E.e. ≥96%

$[\alpha]_D$ +90 (c=2.0, $CHCl_3$)

Source of chirality: asymmetric synthesis and enzymatic resolution

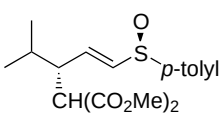
Absolute configuration: (R_S,S_C)

$C_{18}H_{24}O_5S$

Methyl (R_S,S_C)-(*E*)-2-methoxycarbonyl-3-propyl-5-(*p*-tolylsulfinyl)-4-pentenoate

Victor Guerrero de la Rosa, Mario Ordóñez and José Manuel Llera*

Tetrahedron: Asymmetry *12 (2001) 1089*



E.e. ≥96%

$[\alpha]_D$ +173 (c=5.5, $CHCl_3$)

Source of chirality: asymmetric synthesis and enzymatic resolution

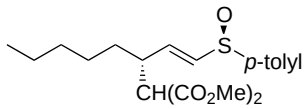
Absolute configuration: (R_S,S_C)

$C_{18}H_{24}O_5S$

Methyl (R_S,S_C)-(*E*)-2-methoxycarbonyl-3-*iso*-propyl-5-(*p*-tolylsulfinyl)-4-pentenoate

Victor Guerrero de la Rosa, Mario Ordóñez and José Manuel Llera*

Tetrahedron: Asymmetry *12 (2001) 1089*



E.e. ≥96%

$[\alpha]_D$ +120.4 (c=3.3, $CHCl_3$)

Source of chirality: asymmetric synthesis and enzymatic resolution

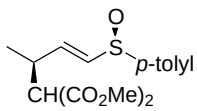
Absolute configuration: (R_S,S_C)

$C_{20}H_{28}O_5S$

Methyl (R_S,S_C)-(*E*)-2-methoxycarbonyl-3-pentyl-5-(*p*-tolylsulfinyl)-4-pentenoate

Victor Guerrero de la Rosa, Mario Ordóñez and José Manuel Llera*

Tetrahedron: Asymmetry *12 (2001) 1089*



E.e. ≥96%

$[\alpha]_D$ +204 (c=1.8, $CHCl_3$)

Source of chirality: asymmetric synthesis and enzymatic resolution

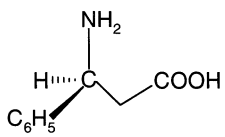
Absolute configuration: (R_S,S_C)

$C_{16}H_{20}O_5S$

Methyl (R_S,S_C)-(*E*)-2-methoxycarbonyl-3-methyl-5-(*p*-tolylsulfinyl)-4-pentenoate

A. V. Sivakumar, G. S. Babu and Sujata V. Bhat*

Tetrahedron: Asymmetry *12 (2001) 1095*



Ee=91%

$[\alpha]_D^{20}$=−6.89 (c 1.00, H_2O)

Source of chirality: chiral sulfoxide

Absolute configuration: (*S*)

$C_9H_{11}NO_2$

(*S*)-β-Amino-β-phenylpropionic acid