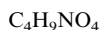
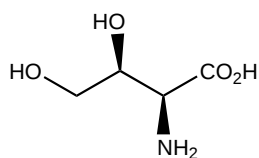


N. W. Fadnavis,* Mohd. Sharfuddin and S. Kumara Vadivel

Tetrahedron: Asymmetry 12 (2001) 691



(2*S*,3*S*)-2-Amino-3,4-dihydroxybutyric acid

Ee >99%

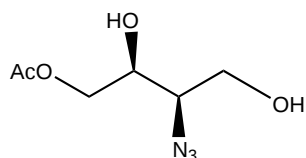
$[\alpha]_D^{25} = -13.4$ ($c = 1.0$ H₂O)

Source of chirality: enzymatic hydrolysis

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

N. W. Fadnavis,* Mohd. Sharfuddin and S. Kumara Vadivel

Tetrahedron: Asymmetry 12 (2001) 691



(2*S*,3*R*)-3-Azido-2,4-dihydroxybutyl acetate

Ee >99% (by chiral HPLC)

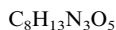
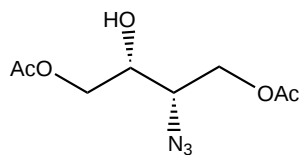
$[\alpha]_D^{25} = -24.7$ ($c = 0.8$ CHCl₃)

Source of chirality: enzymatic hydrolysis

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

N. W. Fadnavis,* Mohd. Sharfuddin and S. Kumara Vadivel

Tetrahedron: Asymmetry 12 (2001) 691



(2*R*,3*S*)-3-Azido-3-hydroxybutyl-1,4-diacetate

Ee = 55%

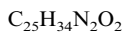
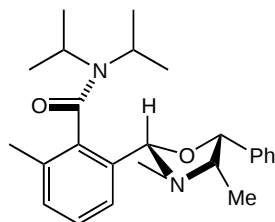
$[\alpha]_D^{25} = -10$ ($c = 1.0$ CHCl₃)

Source of chirality: enzymatic hydrolysis

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

Jonathan Clayden,* Lai Wah Lai and Madeleine Helliwell

Tetrahedron: Asymmetry 12 (2001) 695



(*S_a*)-*N,N*-Diisopropyl-2-[(2*S*,4*S*,5*R*)-3,4-dimethyl-5-phenyl-1,3-oxazolan-2-yl]-6-methylbenzamide

Ee = 100%

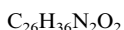
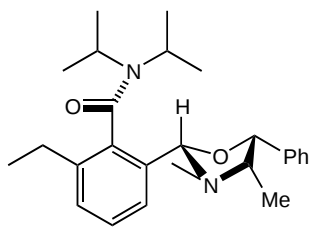
$[\alpha]_D^{25} = -47.9$ ($c = 0.31$, CHCl₃)

Source of chirality: naturally derived (–)-ephedrine

Absolute configuration: (*S_a*,2*S*,4*S*,5*R*)

Jonathan Clayden,* Lai Wah Lai and Madeleine Helliwell

Tetrahedron: Asymmetry 12 (2001) 695



(*S_a*)-*N,N*-Diisopropyl-2-[(2*S*,4*S*,5*R*)-3,4-dimethyl-5-phenyl-1,3-oxazolan-2-yl]-6-ethylbenzamide

Ee = 100%

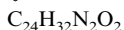
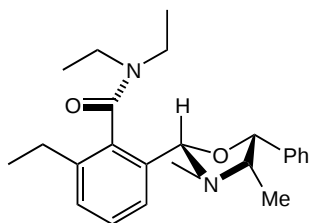
$[\alpha]_D^{24} = -56.7$ ($c = 0.04$, $CHCl_3$)

Source of chirality: naturally derived (–)-ephedrine

Absolute configuration: (*S_a*,2*S*,4*S*,5*R*)

Jonathan Clayden,* Lai Wah Lai and Madeleine Helliwell

Tetrahedron: Asymmetry 12 (2001) 695



(*S_a*)-*N,N*-Diethyl-2-[(2*S*,4*S*,5*R*)-3,4-dimethyl-5-phenyl-1,3-oxazolan-2-yl]-6-ethylbenzamide

Ee = 100%

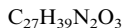
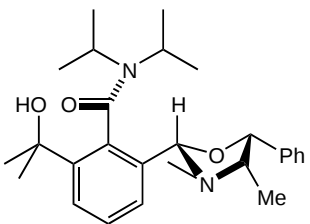
$[\alpha]_D^{24} = -11.7$ ($c = 0.46$, $CHCl_3$)

Source of chirality: naturally derived (–)-ephedrine

Absolute configuration: (*S_a*,2*S*,4*S*,5*R*)

Jonathan Clayden,* Lai Wah Lai and Madeleine Helliwell

Tetrahedron: Asymmetry 12 (2001) 695



(*S_a*)-*N,N*-Diisopropyl-2-[(2*S*,4*S*,5*R*)-3,4-dimethyl-5-phenyl-1,3-oxazolan-2-yl]-6-(1-hydroxy-1-methylethyl)benzamide

Ee = 100%

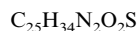
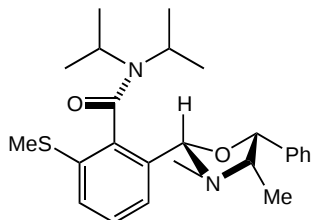
$[\alpha]_D^{21} = -121.3$ ($c = 0.14$, $CHCl_3$)

Source of chirality: naturally derived (–)-ephedrine

Absolute configuration: (*S_a*,2*S*,4*S*,5*R*)

Jonathan Clayden,* Lai Wah Lai and Madeleine Helliwell

Tetrahedron: Asymmetry 12 (2001) 695



(*R_a*)-*N,N*-Diisopropyl-2-[(2*S*,4*S*,5*R*)-3,4-dimethyl-5-phenyl-1,3-oxazolan-2-yl]-6-methylsulfanylbzamide

Ee = 100%

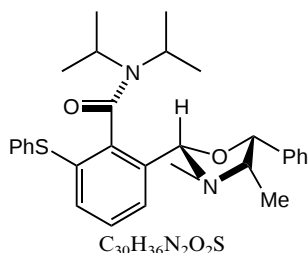
$[\alpha]_D^{22} = -104.4$ ($c = 0.23$, $CHCl_3$)

Source of chirality: naturally derived (–)-ephedrine

Absolute configuration: (*R_a*,2*S*,4*S*,5*R*)

Jonathan Clayden,* Lai Wah Lai and Madeleine Helliwell

Tetrahedron: Asymmetry 12 (2001) 695



(*R_a*)-*N,N*-Diisopropyl-2-[(2*S*,4*S*,5*R*)-3,4-dimethyl-5-phenyl-1,3-oxazolan-2-yl]-6-phenylsulfanylbzamide

Ee = 100%

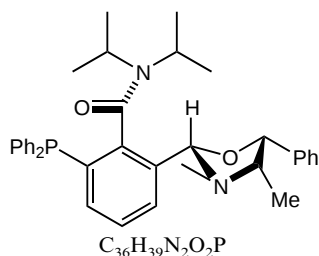
$[\alpha]_D^{21} = -123.4$ ($c = 0.42$, $CHCl_3$)

Source of chirality: naturally derived (–)-ephedrine

Absolute configuration: (*R_a*,2*S*,4*S*,5*R*)

Jonathan Clayden,* Lai Wah Lai and Madeleine Helliwell

Tetrahedron: Asymmetry 12 (2001) 695



(*R_a*)-*N,N*-Diisopropyl-2-[(2*S*,4*S*,5*R*)-3,4-dimethyl-5-phenyl-1,3-oxazolan-2-yl]-6-(diphenylphosphanyl)bzamide

Ee = 100%

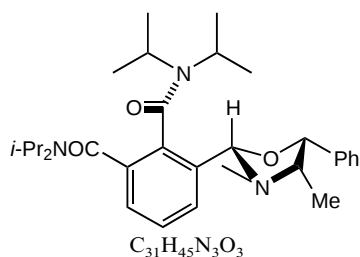
$[\alpha]_D^{25} = -93.6$ ($c = 0.20$, $CHCl_3$)

Source of chirality: naturally derived (–)-ephedrine

Absolute configuration: (*R_a*,2*S*,4*S*,5*R*)

Jonathan Clayden,* Lai Wah Lai and Madeleine Helliwell

Tetrahedron: Asymmetry 12 (2001) 695



(*R_a*)-*N,N,N',N'*-Tetraisopropyl-3-[(2*S*,4*S*,5*R*)-3,4-dimethyl-5-phenyl-1,3-oxazolan-2-yl]-phthalamide

Ee = 100%

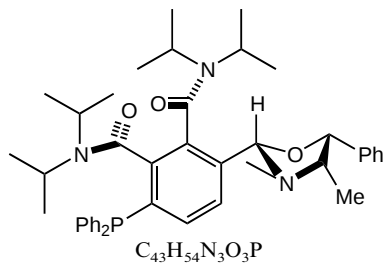
$[\alpha]_D^{25} = -93.6$ ($c = 0.20$, $CHCl_3$)

Source of chirality: naturally derived (–)-ephedrine

Absolute configuration: (*R_a*,2*S*,4*S*,5*R*)

Jonathan Clayden,* Lai Wah Lai and Madeleine Helliwell

Tetrahedron: Asymmetry 12 (2001) 695



(1*R_a*,6*S_a*)-*N,N,N',N'*-Tetraisopropyl-3-[(2*S*,4*S*,5*R*)-3,4-dimethyl-5-phenyl-1,3-oxazolan-2-yl]-6-(diphenylphosphanyl)phthalamide

Ee = 100%

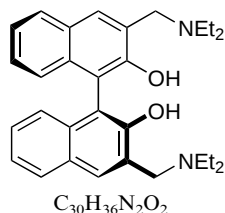
$[\alpha]_D^{25} = -8.0$ ($c = 0.08$, $CHCl_3$)

Source of chirality: naturally derived (–)-ephedrine

Absolute configuration: (1*R_a*,6*S_a*,2*S*,4*S*,5*R*)

Jesús Casas, Carmen Nájera,* José M. Sansano, José González,
José M. Saá* and Manuel Vega

Tetrahedron: Asymmetry 12 (2001) 699



(*S*)-3,3'-Bis[(diethylamino)methyl]-2,2'-dihydroxy-1,1'-binaphthalene

Ee = >98%

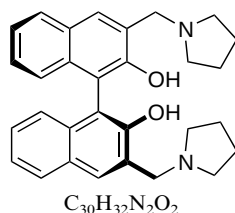
$[\alpha]_D^{25} = -140.8$ ($c = 0.5$, $CHCl_3$)

Source of chirality: chemical resolution

Absolute configuration: (*S*)

Jesús Casas, Carmen Nájera,* José M. Sansano, José González,
José M. Saá* and Manuel Vega

Tetrahedron: Asymmetry 12 (2001) 699



(*S*)-3,3'-Bis[*N*-(pyrrolidino)methyl]-2,2'-dihydroxy-1,1'-binaphthalene

Ee = >98%

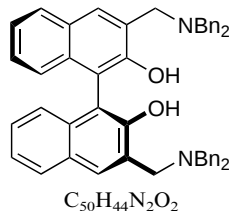
$[\alpha]_D^{25} = -22.4$ ($c = 1$, $CHCl_3$)

Source of chirality: chemical resolution

Absolute configuration: (*S*)

Jesús Casas, Carmen Nájera,* José M. Sansano, José González,
José M. Saá* and Manuel Vega

Tetrahedron: Asymmetry 12 (2001) 699



(*S*)-3,3'-Bis[(dibenzylamino)methyl]-2,2'-dihydroxy-1,1'-binaphthalene

Ee = >98%

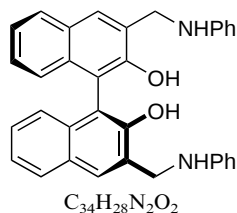
$[\alpha]_D^{25} = -133.5$ ($c = 1$, $CHCl_3$)

Source of chirality: chemical resolution

Absolute configuration: (*S*)

Jesús Casas, Carmen Nájera,* José M. Sansano, José González,
José M. Saá* and Manuel Vega

Tetrahedron: Asymmetry 12 (2001) 699



(*S*)-3,3'-Bis[(phenylamino)methyl]-2,2'-dihydroxy-1,1'-binaphthalene

Ee = >98%

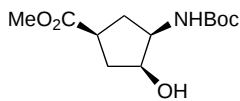
$[\alpha]_D^{25} = -43.8$ ($c = 1$, $CHCl_3$)

Source of chirality: chemical resolution

Absolute configuration: (*S*)

Mark E. B. Smith,* Michael C. Lloyd, Nadine Derrien,
Richard C. Lloyd, Stephen J. C. Taylor, David A. Chaplin,
Guy Casy and Raymond McCague

Tetrahedron: Asymmetry 12 (2001) 703



$C_{12}H_{21}NO_5$

(1*S*,3*R*,4*S*)-3-(*tert*-Butylcarbonylamino)-4-hydroxycyclopentanecarboxylic
acid methyl ester

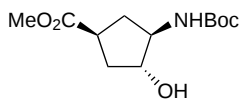
Ee>98%

$[\alpha]_D^{25} = +3.3$ (*c* 1, MeOH)

Source of chirality: bioresolution

Mark E. B. Smith,* Michael C. Lloyd, Nadine Derrien,
Richard C. Lloyd, Stephen J. C. Taylor, David A. Chaplin,
Guy Casy and Raymond McCague

Tetrahedron: Asymmetry 12 (2001) 703



$C_{12}H_{21}NO_5$

(1*S*,3*R*,4*R*)-3-(*tert*-Butylcarbonylamino)-4-hydroxycyclopentanecarboxylic
acid methyl ester

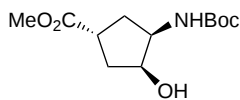
Ee>98%

$[\alpha]_D^{25} = -25.9$ (*c* 1, MeOH)

Source of chirality: bioresolution

Mark E. B. Smith,* Michael C. Lloyd, Nadine Derrien,
Richard C. Lloyd, Stephen J. C. Taylor, David A. Chaplin,
Guy Casy and Raymond McCague

Tetrahedron: Asymmetry 12 (2001) 703



$C_{12}H_{21}NO_5$

(1*R*,3*R*,4*S*)-3-(*tert*-Butylcarbonylamino)-4-hydroxycyclopentanecarboxylic
acid methyl ester

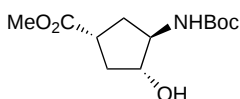
Ee>98%

$[\alpha]_D^{25} = +36.4$ (*c* 1, MeOH)

Source of chirality: bioresolution

Mark E. B. Smith,* Michael C. Lloyd, Nadine Derrien,
Richard C. Lloyd, Stephen J. C. Taylor, David A. Chaplin,
Guy Casy and Raymond McCague

Tetrahedron: Asymmetry 12 (2001) 703



$C_{12}H_{21}NO_5$

(1*R*,3*R*,4*R*)-3-(*tert*-Butylcarbonylamino)-4-hydroxycyclopentanecarboxylic
acid methyl ester

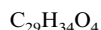
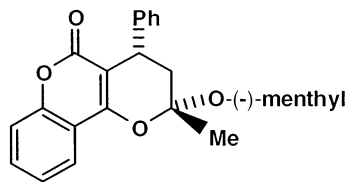
Ee>98%

$[\alpha]_D^{25} = -9.7$ (*c* 1, MeOH)

Source of chirality: bioresolution

Giancarlo Cravotto,* Gian Mario Nano, Giovanni Palmisano* and Silvia Tagliapietra

Tetrahedron: Asymmetry 12 (2001) 707



(2*R*,4*S*)-2,3,4,5-Tetrahydro-2-(-)-menthyloxy-2-methyl-4-phenylpyrano-[3,2-*c*]-benzopyran-5-one

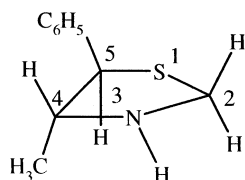
Ee = 95.0%

$[\alpha]_D -50.1$ (*c* 1, CH₂Cl₂)

Source of chirality: (-)-(1*R*,2*S*,5*R*)-menthol, as chiral auxiliary

Alejandro Cruz,* Aurora Vásquez-Badillo, Iris Ramos-García and Rosalinda Contreras*

Tetrahedron: Asymmetry 12 (2001) 711



(4*R*,5*R*)-2,2,3-Trihydro-4-methyl-5-phenyl-1,3-thiazolidine

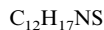
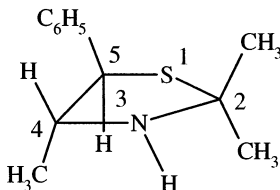
$[\alpha]_D = -125.9$ (*c* = 170 mg/10 mL, CHCl₃)

Source of chirality: commercially available 1*S*,2*R*-(−)-norephedrine hydrochloride through chlorodeoxy-norpseudoephedrine and thiosulfonic deoxy-norpseudoephedrine acid

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

Alejandro Cruz,* Aurora Vásquez-Badillo, Iris Ramos-García and Rosalinda Contreras*

Tetrahedron: Asymmetry 12 (2001) 711



(4*R*,5*R*)-3-Hydroxy-2,2,4-trimethyl-5-phenyl-1,3-thiazolidine

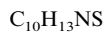
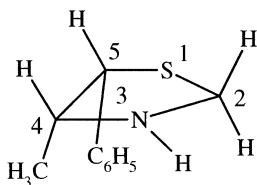
$[\alpha]_D = -146.15$ (*c* = 19.5 mg/10 mL, CHCl₃)

Source of chirality: commercially available 1*S*,2*R*-(−)-norephedrine hydrochloride through chlorodeoxy-norpseudoephedrine and thiosulfonic deoxy-norpseudoephedrine acid

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

Alejandro Cruz,* Aurora Vásquez-Badillo, Iris Ramos-García and Rosalinda Contreras*

Tetrahedron: Asymmetry 12 (2001) 711



(4*R*,5*S*)-2,2,3-Trihydro-4-methyl-5-phenyl-1,3-thiazolidine

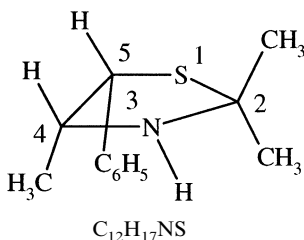
$[\alpha]_D = +55.0$ (*c* = 13.1 mg/10 mL, CHCl₃)

Source of chirality: commercially available 1*S*,2*R*-(−)-norephedrine hydrochloride through chlorodeoxy-norpseudoephedrine and thiosulfonic deoxy-norpseudoephedrine acid

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

Alejandro Cruz,* Aurora Vásquez-Badillo, Iris Ramos-García and Rosalinda Contreras*

Tetrahedron: Asymmetry 12 (2001) 711

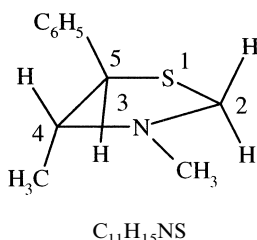


(4*R*,5*S*)-3-Hydro-2,2,4-trimethyl-5-phenyl-1,3-thiazolidine

$[\alpha]_D = -11.3$ ($c = 17.7$ mg/10 mL, $CHCl_3$)
 Source of chirality: commercially available 1*S*,2*R*-(-)-norephedrine hydrochloride through chlorodeoxy-norpseudoephedrine and thiosulfonic deoxy-norephedrine acid
 Absolute configuration: (4*R*,5*S*)

Alejandro Cruz,* Aurora Vásquez-Badillo, Iris Ramos-García and Rosalinda Contreras*

Tetrahedron: Asymmetry 12 (2001) 711

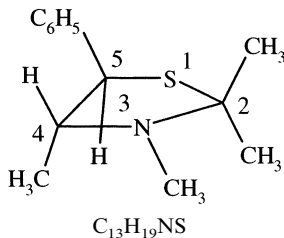


(4*R*,5*R*)-2,2-Dihydro-3,4-dimethyl-5-phenyl-1,3-thiazolidine

$[\alpha]_D = -7.4$ ($c = 17.5$ mg/10 mL, $CHCl_3$)
 Source of chirality: commercially available 1*S*,2*R*-(-)-ephedrine hydrochloride through chlorodeoxy-pseudoephedrine and thiosulfonic deoxy-pseudoephedrine acid
 Absolute configuration: (4*R*,5*R*)

Alejandro Cruz,* Aurora Vásquez-Badillo, Iris Ramos-García and Rosalinda Contreras*

Tetrahedron: Asymmetry 12 (2001) 711

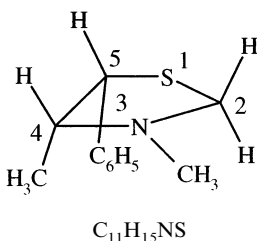


(4*R*,5*R*)-2,2,3,4-Tetramethyl-5-phenyl-1,3-thiazolidine

$[\alpha]_D = +23.7$ ($c = 29.5$ mg/10 mL, $CHCl_3$)
 Source of chirality: commercially available 1*S*,2*R*-(-)-ephedrine hydrochloride through chlorodeoxy-pseudoephedrine and thiosulfonic deoxy-pseudoephedrine acid
 Absolute configuration: (4*R*,5*R*)

Alejandro Cruz,* Aurora Vásquez-Badillo, Iris Ramos-García and Rosalinda Contreras*

Tetrahedron: Asymmetry 12 (2001) 711

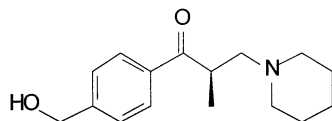


(4*R*,5*S*)-2,2-Dihydro-3,4-dimethyl-5-phenyl-1,3-thiazolidine

$[\alpha]_D = -7.2$ ($c = 12.5$ mg/10 mL, $CHCl_3$)
 Source of chirality: commercially available 1*S*,2*R*-(-)-ephedrine hydrochloride through chlorodeoxy-pseudoephedrine and thiosulfonic deoxy-ephedrine acid
 Absolute configuration: (4*R*,5*S*)

József Bálint, Imre Markovits,* Gabriella Egri, Zsuzsanna Tuza,
László Párkányi and Elemér Fogassy

Tetrahedron: Asymmetry 12 (2001) 719



$C_{16}H_{23}NO_2$

(2*R*)-1-(4'-Hydroxymethyl-phenyl)-2-methyl-3-(piperidine-1-yl)-propane-1-one

Ee >97% [by NMR with chiral solvating agent]

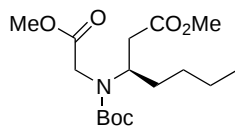
$[\alpha]_D^{25} = -28$ ($c = 1$, methanol)

Source of chirality: resolution by diastereoisomer salt formation

Absolute configuration: *R* (by X-ray crystallography of the diastereoisomeric salt)

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725



$C_{16}H_{29}NO_6$

(*R*)-3-*N*-(*tert*-Butyloxycarbonyl)-*N*-(methoxycarbonyl)methylaminoheptanoic acid, methyl ester

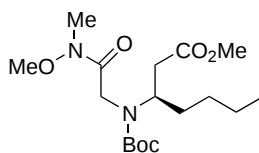
$[\alpha]_D^{20} = -0.7$ ($c = 7.4$, $CHCl_3$)

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

Absolute configuration: *R*

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725



$C_{17}H_{32}N_2O_6$

(*R*)-3-*N*-(*tert*-Butyloxycarbonyl)-*N*-(*N*-methyl-*N*-methoxycarboamido)methylaminoheptanoic acid, methyl ester

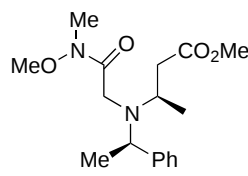
$[\alpha]_D^{20} = -15.3$ ($c = 1.2$, $CHCl_3$)

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

Absolute configuration: *R*

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725



$C_{17}H_{26}N_2O_4$

(*R*)-3-*N*-((*R*)-1-Phenylethyl)-*N*-(*N*-methyl-*N*-methoxycarboamido)methylaminobutanoic acid, methyl ester

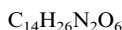
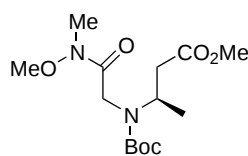
$[\alpha]_D^{20} = -5.1$ ($c = 2.1$, $CHCl_3$)

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

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

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725



(*R*)-3-*N*-(*tert*-Butyloxycarbonyl)-*N*-(*N*-methyl-*N*-methoxycarboamido)-methylaminobutanoic acid, methyl ester

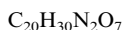
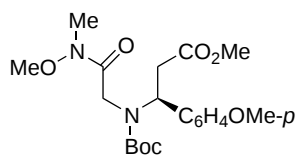
$[\alpha]_D^{20} = -10.7$ (*c* 2.1, $CHCl_3$)

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

Absolute configuration: *R*

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725



(*S*)-3-*N*-(*tert*-Butyloxycarbonyl)-*N*-(*N*-methyl-*N*-methoxycarboamido)-methylamino-3-(4'-methoxyphenyl)propanoic acid, methyl ester

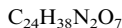
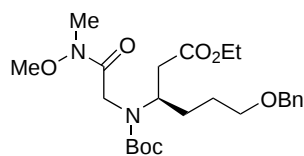
$[\alpha]_D^{20} = -52.4$ (*c* 2.7, $CHCl_3$)

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

Absolute configuration: *S*

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725



(*R*)-3-*N*-(*tert*-Butyloxycarbonyl)-*N*-(*N*-methyl-*N*-methoxycarboamido)-methylamino-6-benzoxylhexanoic acid, ethyl ester

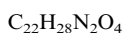
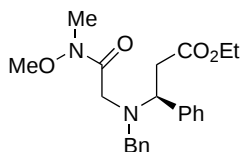
$[\alpha]_D^{20} = +1.6$ (*c* 1.2, $CHCl_3$)

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

Absolute configuration: *R*

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725



(*S*)-3-*N*-Benzyl-*N*-(*N*-methyl-*N*-methoxycarboamido)methylamino-3-phenylpropanoic acid, ethyl ester

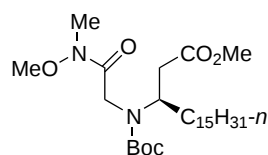
$[\alpha]_D^{20} = -16.4$ (*c* 2.8, $CHCl_3$)

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

Absolute configuration: *S*

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725



(*R*)-3-*N*-(*tert*-Butyloxycarbonyl)-*N*-(*N*-methyl-*N*-methoxycarboamido)-methylaminooctadecanoic acid, methyl ester

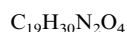
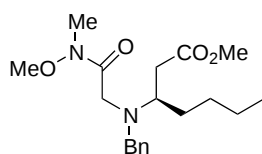
$[\alpha]_D^{20} = -1.2$ (*c* 2.2, $CHCl_3$)

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

Absolute configuration: *R*

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725



(*R*)-3-*N*-Benzyl-*N*-(*N*-methyl-*N*-methoxycarboamido)methylamino-3-heptanoic acid, methyl ester

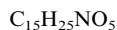
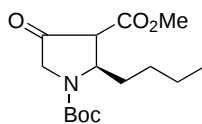
$[\alpha]_D^{20} = -5.4$ (*c* 2.2, $CHCl_3$)

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

Absolute configuration: *R*

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725



(*4RS,5R*)-1-(*tert*-Butyloxycarbonyl)-4-methoxycarbonyl-5-*n*-butyl-3-pyrrolidinone

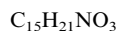
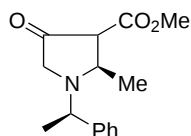
$[\alpha]_D^{20} = +2.3$ (*c* 1.3, $CHCl_3$)

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

Absolute configuration: 5*R*

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725



(*4RS,5R*)-1-(*R*)-1'-Phenylethyl-4-methoxycarbonyl-5-methyl-3-pyrrolidinone

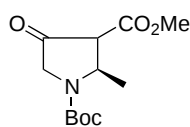
$[\alpha]_D^{20} = -6.2$ (*c* 8.0, $CHCl_3$)

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

Absolute configuration: (5*R*,1'*R*)

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725



(4*R*,5*R*)-1-(*tert*-Butyloxycarbonyl)-4-methoxycarbonyl-5-methyl-3-pyrrolidinone

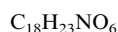
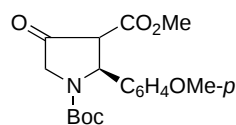
$[\alpha]_D^{20} = -15.1$ (*c* 6.7, $CHCl_3$)

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

Absolute configuration: 5*R*

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725



(4*R*,5*R*)-1-(*tert*-Butyloxycarbonyl)-4-methoxycarbonyl-5-(4'-methoxyphenyl)-3-pyrrolidinone

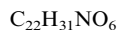
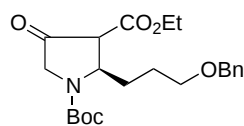
$[\alpha]_D^{20} = -13.2$ (*c* 1.0, $CHCl_3$)

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

Absolute configuration: 5*R*

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725



(4*R*,5*R*)-1-(*tert*-Butyloxycarbonyl)-4-ethoxycarbonyl-5-(3'-benzoxypropyl)-3-pyrrolidinone

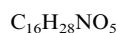
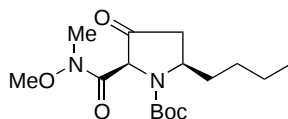
$[\alpha]_D^{20} = +25.3$ (*c* 1.2, $CHCl_3$)

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

Absolute configuration: 5*R*

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725



(2*S*,5*R*)-1-(*tert*-Butyloxycarbonyl)-2-(*N*-methyl-*N*-methoxycarboamido)-5-*n*-butyl-3-pyrrolidinone

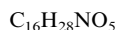
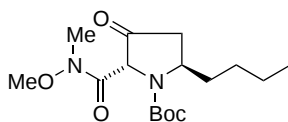
$[\alpha]_D^{20} = +41.5$ (*c* 3.7, $CHCl_3$)

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

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

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725



(2*S*,5*R*)-1-(*tert*-Butyloxycarbonyl)-2-(*N*-methyl-*N*-methoxycarboamido)-5-*n*-butyl-3-pyrrolidinone

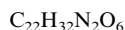
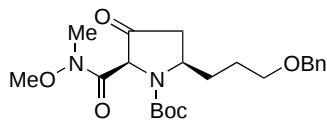
$[\alpha]_D^{20} = +16.9$ (*c* 2.8, $CHCl_3$)

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

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

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725



(2*R*,5*R*)-1-(*tert*-Butyloxycarbonyl)-2-(*N*-methyl-*N*-methoxycarboamido)-5-(3'-benzoxypentyl)-3-pyrrolidinone

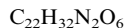
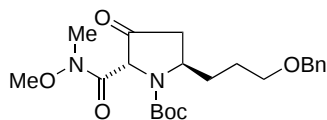
$[\alpha]_D^{20} = +40.3$ (*c* 1.0, $CHCl_3$)

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

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

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725



(2*S*,5*R*)-1-(*tert*-Butyloxycarbonyl)-2-(*N*-methyl-*N*-methoxycarboamido)-5-(3'-benzoxypentyl)-3-pyrrolidinone

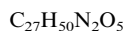
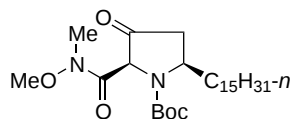
$[\alpha]_D^{20} = +10.4$ (*c* 0.7, $CHCl_3$)

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

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

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725



(2*R*,5*R*)-1-(*tert*-Butyloxycarbonyl)-2-(*N*-methyl-*N*-methoxycarboamido)-5-*n*-pentadecyl-3-pyrrolidinone

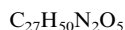
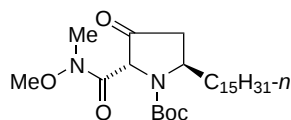
$[\alpha]_D^{20} = +44.0$ (*c* 2.3, $CHCl_3$)

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

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

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725



(2*R*,5*R*)-1-(*tert*-Butyloxycarbonyl)-2-(*N*-methyl-*N*-methoxycarboamido)-5-*n*-pentadecyl-3-pyrrolidinone

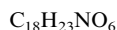
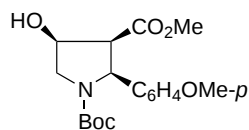
$[\alpha]_D^{20} = +10.4$ (*c* 1.1, $CHCl_3$)

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

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

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725



(2*R*,3*S*,4*S*)-1-(*tert*-Butyloxycarbonyl)-4-hydroxy-3-methoxycarbonyl-2-(4'-methoxyphenyl)pyrrolidine

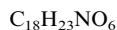
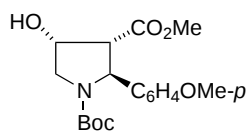
$[\alpha]_D^{20} = -10.5$ (*c* 0.5, $CHCl_3$)

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

Absolute configuration: (2*R*,3*S*,4*S*)

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725



(2*R*,3*R*,4*R*)-1-(*tert*-Butyloxycarbonyl)-4-hydroxy-3-methoxycarbonyl-2-(4'-methoxyphenyl)pyrrolidine

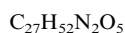
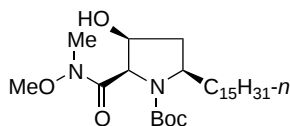
$[\alpha]_D^{20} = +7.8$ (*c* 1.8, $CHCl_3$)

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

Absolute configuration: (2*R*,3*R*,4*R*)

Yue Wang and Dawei Ma*

Tetrahedron: Asymmetry 12 (2001) 725

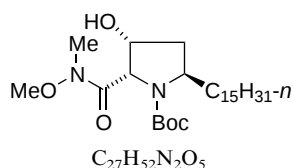


(2*R*,3*S*,5*R*)-1-(*tert*-Butyloxycarbonyl)-2-(*N*-methyl-*N*-methoxycarboamido)-3-hydroxy-5-*n*-pentadecylpyrrolidine

$[\alpha]_D^{20} = -19.6$ (*c* 1.9, $CHCl_3$)

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

Absolute configuration: (2*R*,3*S*,5*R*)

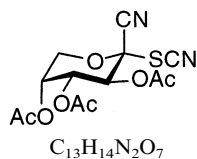


(2*S*,3*R*,5*R*)-1-(*tert*-Butyloxycarbonyl)-2-(*N*-methyl-*N*-methoxycarbonyl)-3-hydroxy-5-*n*-pentadecylpyrrolidine

$[\alpha]_D^{20} = +3.1$ (*c* 0.9, $CHCl_3$)

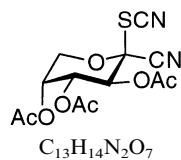
Source of chirality: (*R*)- α -methylbenzylamine

Absolute configuration: (2*S*,3*R*,5*R*)



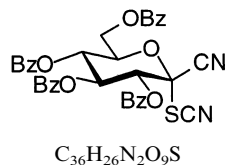
2,3,4-Tri-*O*-acetyl-1-deoxy-1-thiocyanato- β -D-arabinopyranosyl cyanide

$[\alpha]_D = -237$ (*c* 1.02, $CHCl_3$)



2,3,4-Tri-*O*-acetyl-1-deoxy-1-thiocyanato- α -D-arabinopyranosyl cyanide

$[\alpha]_D = -115$ (*c* 1.02, $CHCl_3$)

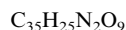
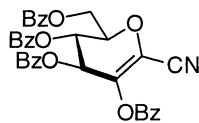


2,3,4,6-Tetra-*O*-benzoyl-1-deoxy-1-thiocyanato- β -D-glucopyranosyl cyanide

$[\alpha]_D = +123$ (*c* 1.01, $CHCl_3$)

László Somsák,* Katalin Czifrák, Tamás Deim,
László Szilágyi and Attila Bényei

Tetrahedron: Asymmetry 12 (2001) 731

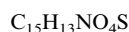
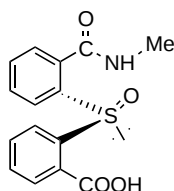


2,6-Anhydro-3,4,5,7-tetra-*O*-benzoyl-D-arabino-hex-2-enonitrile

$[\alpha]_D = +60$ (c 1.03, $CHCl_3$)

Jenő Varga, Dénes Szabó,* Cecília P. Sár and István Kapovits

Tetrahedron: Asymmetry 12 (2001) 745



2-[2-(*N*-Methylcarbamoyl)phenylsulfinyl]benzoic acid

Ee >99%

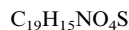
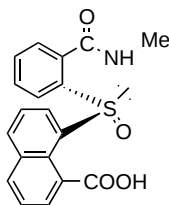
$[\alpha]_{546}^{25} = +42.1$ (c = 0.5, DMF)

Source of chirality: resolution with (+)-cinchonine

Absolute configuration: *R*

Jenő Varga, Dénes Szabó,* Cecília P. Sár and István Kapovits

Tetrahedron: Asymmetry 12 (2001) 745



8-[2-(*N*-Methylcarbamoyl)phenylsulfinyl]naphthoic acid

Ee >99%

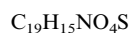
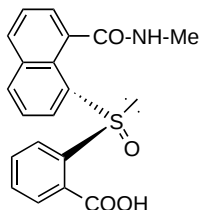
$[\alpha]_{546}^{25} = +555$ (c = 0.5, DMF)

Source of chirality: resolution with (–)-brucine

Absolute configuration: *S*

Jenő Varga, Dénes Szabó,* Cecília P. Sár and István Kapovits

Tetrahedron: Asymmetry 12 (2001) 745



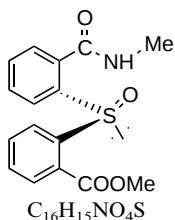
2-[8-(*N*-Methylcarbamoyl)-1-naphthylsulfinyl]benzoic acid

Ee >89%

$[\alpha]_{546}^{25} = -255$ (c = 0.5, DMF)

Source of chirality: resolution with (–)-strychnine

Absolute configuration: *R*



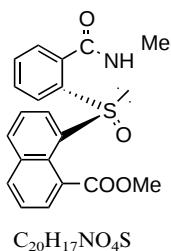
Methyl 2-[2-(*N*-methylcarbamoyl)phenylsulfinyl]benzoate

Ee >99%

$[\alpha]_{546}^{25} = +81$ ($c = 0.5$, DMF)

Source of chirality: stereospecific synthesis

Absolute configuration: *R*



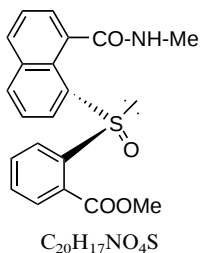
Methyl 8-[2-(*N*-methylcarbamoyl)phenylsulfinyl]-1-naphthoate

Ee >97%

$[\alpha]_{546}^{25} = -469$ ($c = 0.5$, DMF)

Source of chirality: stereospecific synthesis

Absolute configuration: *R*



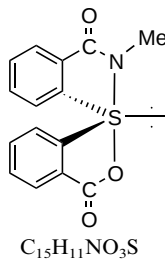
Methyl 2-[8-(*N*-methylcarbamoyl)-1-naphthylsulfinyl]benzoate

Ee >86%

$[\alpha]_{546}^{25} = +437$ ($c = 0.5$, DMF)

Source of chirality: stereospecific synthesis

Absolute configuration: *S*



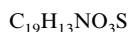
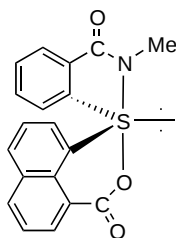
Spiro[3*H*-2,1-benzoxathiol-3'-one-1,1'-3*H*-2,1-benzazathiol]-2-methyl-3-one

Ee >99%

$[\alpha]_{546}^{25} = +181$ ($c = 0.5$, DMF)

Source of chirality: stereospecific synthesis

Absolute configuration: *S*



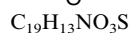
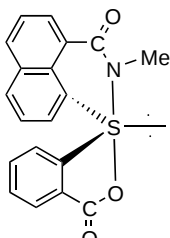
Spiro[3H-2,1-benzazathiol-2'-methyl-3'-one-1,1'-naphtho-[1,8-d,e]-3H-2,1-oxathiin-3-one]

Ee >97%

$[\alpha]_{546}^{25} = +623$ ($c = 0.5$, DMF)

Source of chirality: stereospecific synthesis

Absolute configuration: *R*



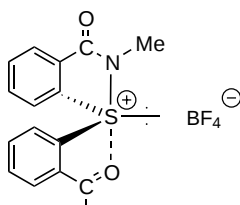
Spiro[3H-2,1-benzoxathiol-3'-one-1,1'-naphtho-[1,8-d,e]-3H-2,1-thiazine-2-methyl-3-one]

Ee >97%

$[\alpha]_{546}^{25} = +161$ ($c = 0.5$, DMF)

Source of chirality: stereospecific synthesis

Absolute configuration: *S*



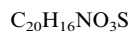
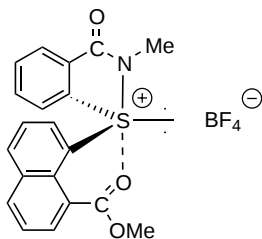
2,3-Dihydro-1-[2'-(methoxycarbonyl)phenyl]-2-methyl-3-oxo-1,2-benzisothiazol-1-ium tetrafluoroborate

Ee >94%

$[\alpha]_{546}^{25} = +293$ ($c = 0.5$, DMF)

Source of chirality: stereospecific synthesis

Absolute configuration: *R*



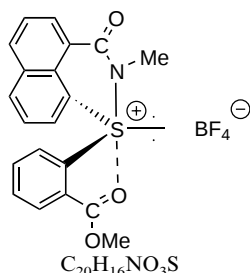
2,3-Dihydro-1-[8-(methoxycarbonyl)-1-naphthyl]-2-methyl-3-oxo-1,2-benzisothiazol-1-ium tetrafluoroborate

Ee >96%

$[\alpha]_{546}^{25} = +398$ ($c = 0.5$, DMF)

Source of chirality: stereospecific synthesis

Absolute configuration: *S*



2,3-Dihydro-1-[2-(methoxycarbonyl)phenyl]-2-methyl-3-oxo-naphtho-[1,8-*d,e*]-1,2-thiazin-1-ium tetrafluoroborate

Ee >95%

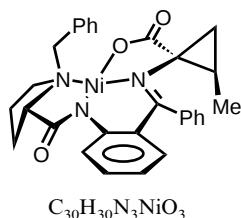
$[\alpha]_{D}^{25} = +323$ ($c = 0.5$, DMF)

Source of chirality: stereospecific synthesis

Absolute configuration: *R*

Abdelmadjid Debache, Sylvain Collet, Patrick Bauchat, Daniel Danion, Lisenn Euzenat, Alain Hercouet and Bertrand Carboni*

Tetrahedron: Asymmetry 12 (2001) 761



Ni(II) complex of Schiff base of (*S*)-2-[*N'*-(*N*-benzylpropyl)amino]-benzophenone and (1*R*,2*S*)-allonorcoronamic acid

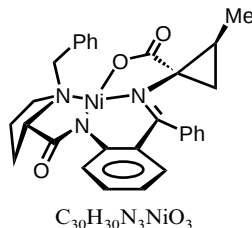
D.e and e.e. >98% (by 1H NMR, 300 MHz)

$[\alpha]_D^{25} = -2261$ ($c = 0.044$, $CHCl_3$)

Source of chirality: asymmetric synthesis

Abdelmadjid Debache, Sylvain Collet, Patrick Bauchat, Daniel Danion, Lisenn Euzenat, Alain Hercouet and Bertrand Carboni*

Tetrahedron: Asymmetry 12 (2001) 761



Ni(II) complex of Schiff base of (*S*)-2-[*N'*-(*N*-benzylpropyl)amino]-benzophenone and (1*R*,2*S*)-allonorcoronamic acid

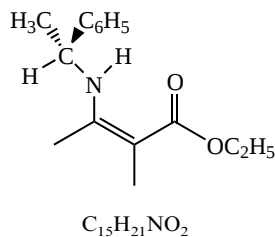
D.e and e.e. >98% (by 1H NMR, 300 MHz)

$[\alpha]_D^{25} = -3056$ ($c = 0.063$, $CHCl_3$)

Source of chirality: asymmetric synthesis

Mohammed Nour,* Kimny Tan, Raphael Jankowski and Christian Cavé

Tetrahedron: Asymmetry 12 (2001) 765



(1'*R*)-2-Methyl-3-(1'-phenylethylamino)-but-2-enoic acid ethyl ester

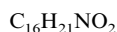
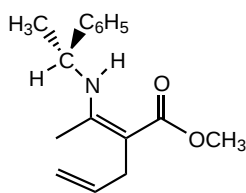
$[\alpha]_D = -298$ ($c = 5.5$, $CHCl_3$)

Source of chirality: (*R*)-1-phenylethylamine

Absolute configuration: *R*

Mohammed Nour,* Kimny Tan, Raphael Jankowski
and Christian Cavé

Tetrahedron: Asymmetry 12 (2001) 765



(1'*R*)-2-Allyl-3-(1'-phenylethylamino)-but-2-enoic acid methyl ester

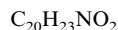
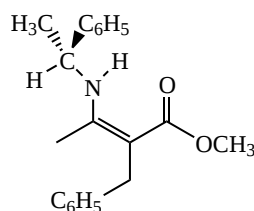
$[\alpha]_D = -387$ ($c = 12.3$, $CHCl_3$)

Source of chirality: (*R*)-1-phenylethylamine

Absolute configuration: *R*

Mohammed Nour,* Kimny Tan, Raphael Jankowski
and Christian Cavé

Tetrahedron: Asymmetry 12 (2001) 765



(1'*R*)-2-Benzyl-3-(1'-phenylethylamino)-but-2-enoic acid methyl ester

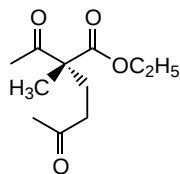
$[\alpha]_D = -310$ ($c = 1.39$, $CHCl_3$)

Source of chirality: (*R*)-1-phenylethylamine

Absolute configuration: *R*

Mohammed Nour,* Kimny Tan, Raphael Jankowski
and Christian Cavé

Tetrahedron: Asymmetry 12 (2001) 765



(2*R*)-2-Acetyl-2-methyl-5-oxo-hexanoic acid ethyl ester

Ee = 93% (by NMR with $Eu(hfc)_3$)

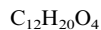
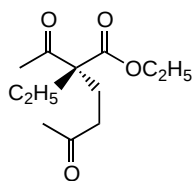
$[\alpha]_D = +8.5$ ($c = 4.8$, $CHCl_3$)

Source of chirality: (*R*)-1-phenylethylamine

Absolute configuration: *R* assigned by
chemical correlation

Mohammed Nour,* Kimny Tan, Raphael Jankowski
and Christian Cavé

Tetrahedron: Asymmetry 12 (2001) 765



(2*R*)-2-Acetyl-2-ethyl-5-oxo-hexanoic acid ethyl ester

Ee = 94% (by NMR with $Eu(hfc)_3$)

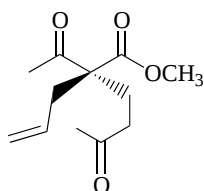
$[\alpha]_D = +8.7$ ($c = 1.6$, $CHCl_3$)

Source of chirality: (*R*)-1-phenylethylamine

Absolute configuration: *R* assigned according
to the reaction mechanism

Mohammed Nour,* Kimny Tan, Raphael Jankowski
and Christian Cavé

Tetrahedron: Asymmetry 12 (2001) 765



(2S)-2-Acetyl-2-(3-oxo-butyl)-pent-4-enoic acid methyl ester

Ee = 96% (by NMR with Eu(hfc)₃)

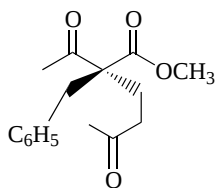
$[\alpha]_D = +18.6$ ($c = 9.9$, $CHCl_3$)

Source of chirality: (R)-1-phenylethylamine

Absolute configuration: S assigned according to the reaction mechanism

Mohammed Nour,* Kimny Tan, Raphael Jankowski
and Christian Cavé

Tetrahedron: Asymmetry 12 (2001) 765



(2S)-2-Acetyl-2-benzyl-5-oxo-hexanoic acid methyl ester

Ee = 94% (by NMR with Eu(hfc)₃)

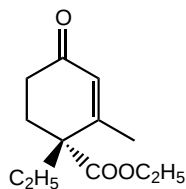
$[\alpha]_D = -26.9$ ($c = 4.5$, $CHCl_3$)

Source of chirality: (R)-1-phenylethylamine

Absolute configuration: S assigned according to the reaction mechanism

Mohammed Nour,* Kimny Tan, Raphael Jankowski
and Christian Cavé

Tetrahedron: Asymmetry 12 (2001) 765



(1R)-1-Ethyl-2-methyl-4-oxo-cyclohex-2-enecarboxylic acid ethyl ester

Ee = 94% (by NMR with Eu(hfc)₃)

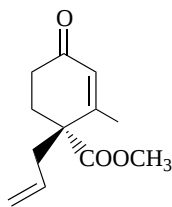
$[\alpha]_D = +109.7$ ($c = 6.2$, $CHCl_3$)

Source of chirality: (R)-1-phenylethylamine

Absolute configuration: R assigned according to the reaction mechanism

Mohammed Nour,* Kimny Tan, Raphael Jankowski
and Christian Cavé

Tetrahedron: Asymmetry 12 (2001) 765



1-Allyl-2-methyl-4-oxo-cyclohex-2-enecarboxylic acid methyl ester

Ee = 96% (by NMR with Eu(hfc)₃)

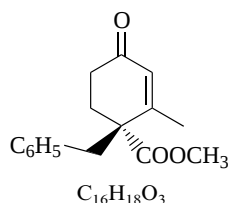
$[\alpha]_D = +88.4$ ($c = 12.8$, $CHCl_3$)

Source of chirality: (R)-1-phenylethylamine

Absolute configuration: S assigned according to the reaction mechanism

Mohammed Nour,* Kimny Tan, Raphael Jankowski
and Christian Cavé

Tetrahedron: Asymmetry 12 (2001) 765



(1*S*)-1-Benzyl-2-methyl-4-oxo-cyclohex-2-enecarboxylic acid methyl ester

Ee = 94% (by NMR with $\text{Eu}(\text{hfc})_3$)

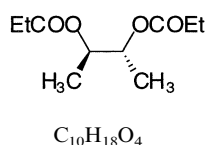
$[\alpha]_{\text{D}} = -65.5$ ($c = 3.2$, CCl_4)

Source of chirality: (*R*)-1-phenylethylamine

Absolute configuration: *S* assigned according to the reaction mechanism

Rong Liu and Hans-Erik Högberg*

Tetrahedron: Asymmetry 12 (2001) 771



(2*R*,3*R*)-2,3-Dipropionyloxybutane

Ee = 95% (by GC)

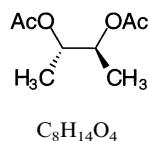
$[\alpha]_{\text{D}}^{20} = +9.25$ (neat)

Source of chirality: enzymatic resolution

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

Rong Liu and Hans-Erik Högberg*

Tetrahedron: Asymmetry 12 (2001) 771



(2*S*,3*S*)-2,3-Diacetoxybutane

Ee >99.5% (by GC)

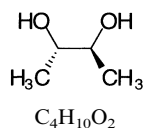
$[\alpha]_{\text{D}}^{25} = -13.7$ (neat); -13.7 ($c = 2$, hexane)

Source of chirality: enzymatic resolution

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

Rong Liu and Hans-Erik Högberg*

Tetrahedron: Asymmetry 12 (2001) 771



(2*S*,3*S*)-2,3-Butanediol

Ee >99.5% (by GC)

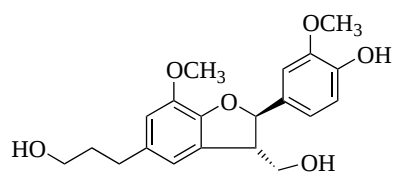
$[\alpha]_{\text{D}}^{25} = +14$ (neat)

Source of chirality: enzymatic resolution

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

Stefaan M. O. Van Dyck, Guy L. F. Lemière,*
Tim H. M. Jonckers, Roger Dommis, Luc Pieters and Volker Buss

Tetrahedron: Asymmetry 12 (2001) 785

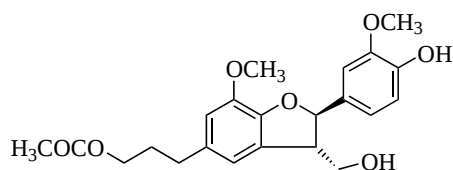


(2*R*,3*S*)-3,5'-Dimethoxy-4',7-epoxy-8,3'-neolignane-4,9,9'-triol

E.e. = 78% (by chiral HPLC)
 $[\alpha]_D^{20} = -1.85$ ($c = 0.106$ M, ethanol)
 Source of chirality: enzymatic kinetic resolution
 Absolute configuration: (2*R*,3*S*)

Stefaan M. O. Van Dyck, Guy L. F. Lemière,*
Tim H. M. Jonckers, Roger Dommis, Luc Pieters and Volker Buss

Tetrahedron: Asymmetry 12 (2001) 785

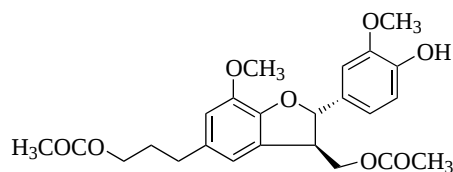


(2*R*,3*S*)-4,9-Dihydroxy-3,5'-dimethoxy-4',7-epoxy-8,3'-neolignane-9'-yl acetate

E.e. = 78% (by chiral HPLC)
 $[\alpha]_D^{20} = -3.2$ ($c = 1.3 \times 10^{-3}$ M, ethanol)
 Source of chirality: enzymatic kinetic resolution
 Absolute configuration: (2*R*,3*S*)

Stefaan M. O. Van Dyck, Guy L. F. Lemière,*
Tim H. M. Jonckers, Roger Dommis, Luc Pieters and Volker Buss

Tetrahedron: Asymmetry 12 (2001) 785

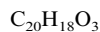
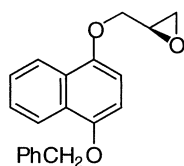


(2*S*,3*R*)-4-Hydroxy-3,5'-dimethoxy-4',7-epoxy-8,3'-neolignane-9,9'-diyl diacetate

E.e. = 61% (by chiral HPLC)
 $[\alpha]_D^{20} = +12.2$ ($c = 0.026$ M, ethanol)
 Source of chirality: enzymatic kinetic resolution
 Absolute configuration: (2*S*,3*R*)

Takuya Kumamoto, Naho Aoyama, Satoko Nakano,
Tsutomu Ishikawa* and Shizuo Narimatsu

Tetrahedron: Asymmetry 12 (2001) 791

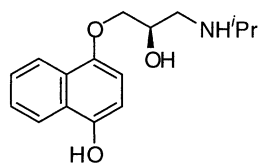


(*R*)-1-Benzyloxy-4-oxiranylmethoxynaphthalene

Ee = 99%
 $[\alpha]_{589}^{24} = -12.4 \pm 3.1$ ($c = 0.06$, $CHCl_3$)
 Source of chirality: (*R*)-glycidyl 3-nitrobenzenesulfonate
 Absolute configuration: (*R*)

Takuya Kumamoto, Naho Aoyama, Satoko Nakano,
Tsutomu Ishikawa* and Shizuo Narimatsu

Tetrahedron: Asymmetry 12 (2001) 791



$C_{16}H_{22}NO_3Cl$

(*R*)-4-Hydroxypropanolol hydrochloride

Ee = 99%

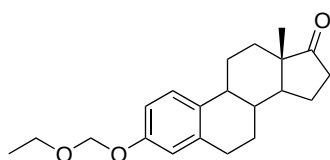
$[\alpha]_{589}^{24} = +22.9 \pm 1.4$ ($c = 0.30$, MeOH)

Source of chirality: (*R*)-glycidyl 3-nitrobenzene-sulfonate

Absolute configuration: (*R*)

Miguel Yus,* Tatiana Soler and Francisco Foubelo

Tetrahedron: Asymmetry 12 (2001) 801



$C_{21}H_{28}O_3$

3-*O*-Ethoxymethylestrone

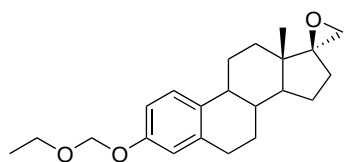
$[\alpha]_D^{25} = +124.7$ (c 0.9, CH_2Cl_2)

Source of chirality: commercially available estrone

Absolute configuration: estrone

Miguel Yus,* Tatiana Soler and Francisco Foubelo

Tetrahedron: Asymmetry 12 (2001) 801



$C_{22}H_{30}O_3$

17,17'-Anhydro-3-*O*-ethoxymethyl-17 α -hydroxymethyl-17 β -estradiol

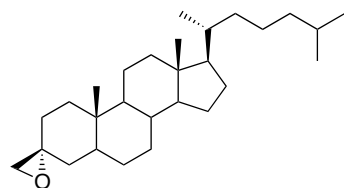
$[\alpha]_D^{25} = +51.4$ (c 1.1, CH_2Cl_2)

Source of chirality: commercially available estrone

Absolute configuration at the new stereocentre: 17*S*

Miguel Yus,* Tatiana Soler and Francisco Foubelo

Tetrahedron: Asymmetry 12 (2001) 801



$C_{28}H_{48}O$

3,3'-Anhydro-3 β -(hydroxymethyl)-5 α -cholestan-3 α -ol

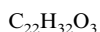
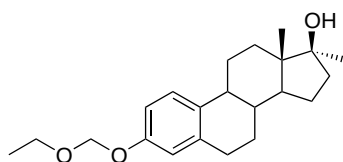
$[\alpha]_D^{25} = +40.5$ (c 1.0, CH_2Cl_2)

Source of chirality: commercially available
5 α -cholestan-3-one

Absolute configuration at the new stereocentre: 3*R*

Miguel Yus,* Tatiana Soler and Francisco Foubelo

Tetrahedron: Asymmetry 12 (2001) 801



3-*O*-Ethoxymethyl-17 α -methyl-17 β -estradiol

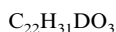
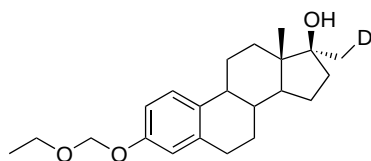
$[\alpha]_D^{25} = +38.2$ (*c* 1.5, CH_2Cl_2)

Source of chirality: commercially available estrone

Absolute configuration at the new stereocentre: 17*S*

Miguel Yus,* Tatiana Soler and Francisco Foubelo

Tetrahedron: Asymmetry 12 (2001) 801



17 α -Deuteriomethyl-3-*O*-ethoxymethyl-17 β -estradiol

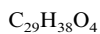
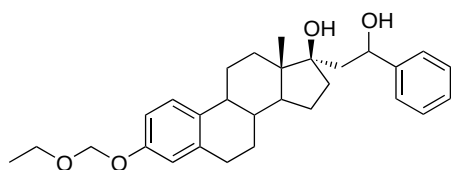
$[\alpha]_D^{25} = +40.7$ (*c* 0.9, CH_2Cl_2)

Source of chirality: commercially available estrone

Absolute configuration at the new stereocentre: 17*S*

Miguel Yus,* Tatiana Soler and Francisco Foubelo

Tetrahedron: Asymmetry 12 (2001) 801



3-*O*-Ethoxymethyl-17 α -(2-hydroxy-2-phenylethyl)-17 β -estradiol

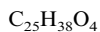
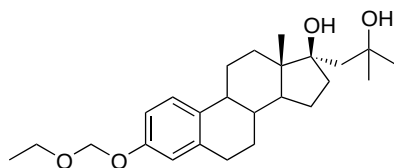
$[\alpha]_D^{25} = +6.7$ (*c* 1.0, CH_2Cl_2)

Source of chirality: commercially available estrone

Absolute configuration at the new stereocentre: (17*R*,2'*R*/*S*)

Miguel Yus,* Tatiana Soler and Francisco Foubelo

Tetrahedron: Asymmetry 12 (2001) 801

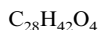
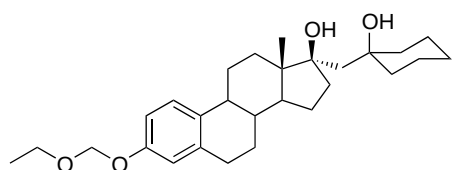


3-*O*-Ethoxymethyl-17 α -(2-hydroxy-2-methylpropyl)-17 β -estradiol

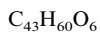
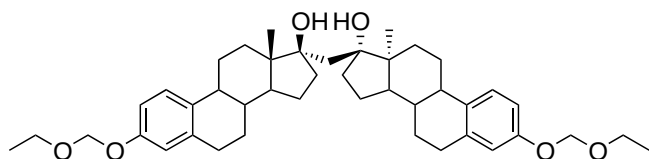
$[\alpha]_D^{25} = +31.2$ (*c* 1.65, CH_2Cl_2)

Source of chirality: commercially available estrone

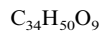
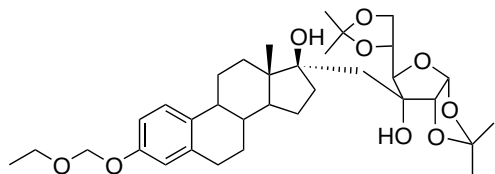
Absolute configuration at the new stereocentre: 17*R* (as assigned from X-ray data)

3-*O*-Ethoxymethyl-17 α -[(1-hydroxycyclohexyl)methyl]-17 β -estradiol
 $[\alpha]_{\text{D}}^{25} = +77.3$ (*c* 1.3, CH₂Cl₂)

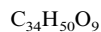
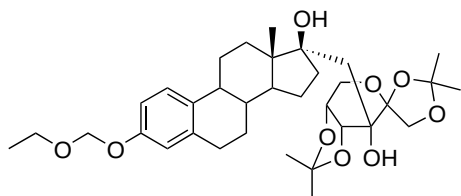
Source of chirality: commercially available estrone

Absolute configuration at the new stereocentre: 17*R*Compound **3f**
 $[\alpha]_{\text{D}}^{25} = +34.7$ (*c* 0.9, CH₂Cl₂)

Source of chirality: commercially available estrone

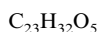
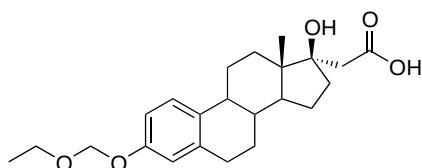
Absolute configuration at the new stereocentre: 17*R*Compound **3g**
 $[\alpha]_{\text{D}}^{25} = +31.4$ (*c* 0.9, CH₂Cl₂)

Source of chirality: commercially available estrone and D-glucose

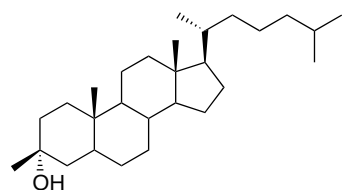
Absolute configuration at the new stereocentres: 17*R* (estrone moiety) and 3*R* (glucose moiety)Compound **3h**
 $[\alpha]_{\text{D}}^{25} = -25.3$ (*c* 1.1, CH₂Cl₂)

Source of chirality: commercially available estrone and D-fructose

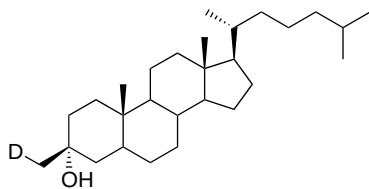
Absolute configuration at the new stereocentres: 17*R* (estrone moiety) and 3*R* (fructose moiety)

17 α -Carboxymethyl-3-*O*-ethoxymethyl-17 β -estradiol
 $[\alpha]_{\text{D}}^{25} = +114.0$ (*c* 1.2, CH₂Cl₂)

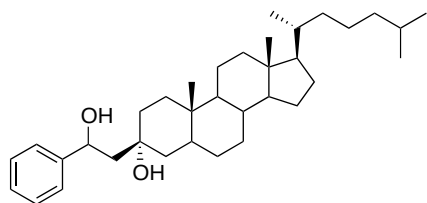
Source of chirality: commercially available estrone

Absolute configuration at the new stereocentre: 17*R*3 β -Methyl-5 α -cholestan-3 α -ol
 $[\alpha]_{\text{D}}^{25} = +36.2$ (*c* 0.9, CH₂Cl₂)

Source of chirality: commercially available

5 α -cholestan-3-oneAbsolute configuration at the new stereocentre: 3*R*3 β -Deuteriomethyl-5 α -cholestan-3 α -ol
 $[\alpha]_{\text{D}}^{25} = +35.8$ (*c* 0.8, CH₂Cl₂)

Source of chirality: commercially available

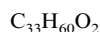
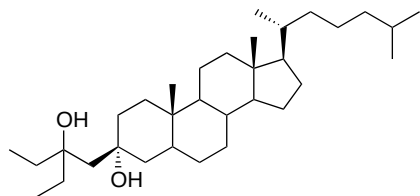
5 α -cholestan-3-oneAbsolute configuration at the new stereocentre: 3*R*3 β -[(2-Hydroxy-2-phenyl)ethyl]-5 α -cholestan-3 α -ol
 $[\alpha]_{\text{D}}^{25} = +46.9$ (*c* 0.8, CH₂Cl₂)

Source of chirality: commercially available

5 α -cholestan-3-oneAbsolute configuration at the new stereocentre: 3*R*

Miguel Yus,* Tatiana Soler and Francisco Foubelo

Tetrahedron: Asymmetry 12 (2001) 801



3β-(2-Hydroxy-2-ethylbutyl)-5α-cholestan-3α-ol

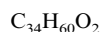
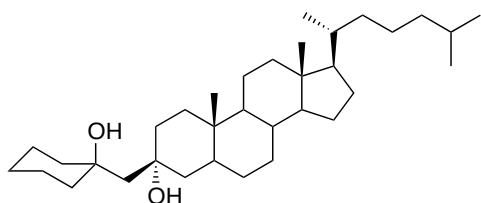
$[\alpha]_{\text{D}}^{25} = +25.4$ (*c* 0.85, CH_2Cl_2)

Source of chirality: commercially available
5α-cholestan-3-one

Absolute configuration at the new stereocentre: 3*R*

Miguel Yus,* Tatiana Soler and Francisco Foubelo

Tetrahedron: Asymmetry 12 (2001) 801



3β-[(1-Hydroxycyclohexyl)methyl]-5α-cholestan-3α-ol

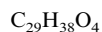
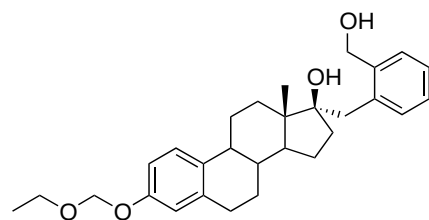
$[\alpha]_{\text{D}}^{25} = +21.5$ (*c* 0.85, CH_2Cl_2)

Source of chirality: commercially available
5α-cholestan-3-one

Absolute configuration at the new stereocentre: 3*R*

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Tetrahedron: Asymmetry 12 (2001) 801



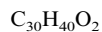
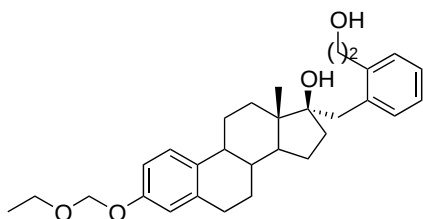
3-*O*-Ethoxymethyl-17α-[2-(hydroxymethyl)phenylmethyl]-17β-estradiol

$[\alpha]_{\text{D}}^{25} = +55.2$ (*c* 1.1, CH_2Cl_2)

Source of chirality: commercially available estrone
Absolute configuration at the new stereocentre: 17*R*

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Tetrahedron: Asymmetry 12 (2001) 801



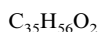
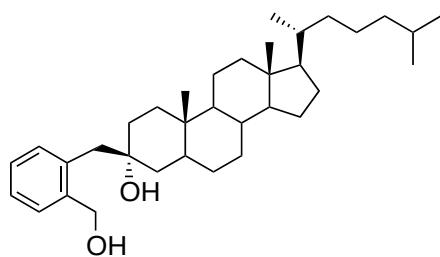
3-*O*-Ethoxymethyl-17α-[2-(2-hydroxyethyl)phenylmethyl]-17β-estradiol

$[\alpha]_{\text{D}}^{25} = +50.2$ (*c* 1.35, CH_2Cl_2)

Source of chirality: commercially available estrone
Absolute configuration at the new stereocentre: 17*R*

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Tetrahedron: Asymmetry 12 (2001) 801



3β-[2-(Hydroxymethyl)phenylmethyl]-5α-cholestan-3α-ol

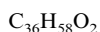
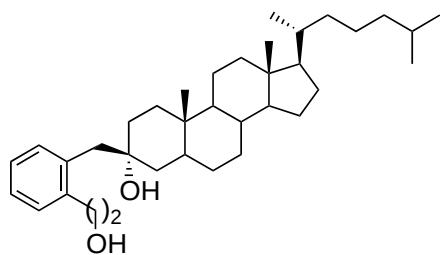
$[\alpha]_D^{25} = +28.6$ (c 0.65, CH_2Cl_2)

Source of chirality: commercially available
5α-cholestan-3-one

Absolute configuration at the new stereocentre: 3*R*

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Tetrahedron: Asymmetry 12 (2001) 801



3β-[2-(2-Hydroxyethyl)phenylmethyl]-5α-cholestan-3α-ol

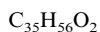
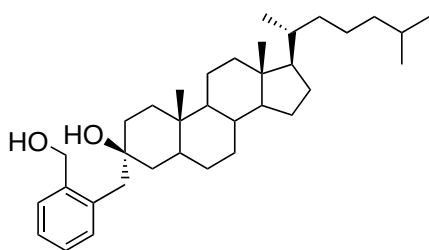
$[\alpha]_D^{25} = +26.7$ (c 0.9, CH_2Cl_2)

Source of chirality: commercially available
5α-cholestan-3-one

Absolute configuration at the new stereocentre: 3*R*

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Tetrahedron: Asymmetry 12 (2001) 801



3α-[2-(Hydroxymethyl)phenylmethyl]-5α-cholestan-3β-ol

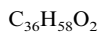
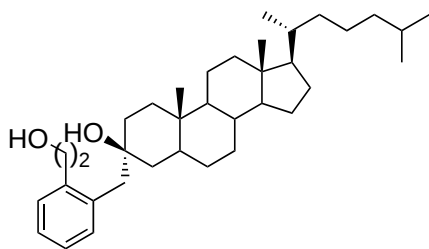
$[\alpha]_D^{25} = +27.6$ (c 0.95, CH_2Cl_2)

Source of chirality: commercially available
5α-cholestan-3-one

Absolute configuration at the new stereocentre: 3*S*

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Tetrahedron: Asymmetry 12 (2001) 801



3α-[2-(2-Hydroxyethyl)phenylmethyl]-5α-cholestan-3β-ol

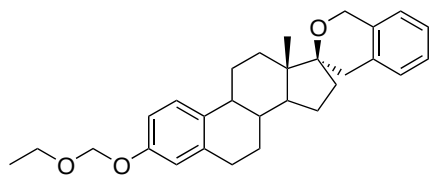
$[\alpha]_D^{25} = +24.8$ (c 0.75, CH_2Cl_2)

Source of chirality: commercially available
5α-cholestan-3-one

Absolute configuration at the new stereocentre: 3*S*

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Tetrahedron: Asymmetry 12 (2001) 801



$C_{29}H_{36}O_3$

Compound **17a**

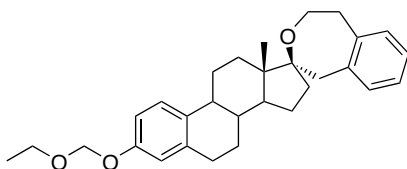
$[\alpha]_D^{25} = +21.1$ (c 1.15, CH_2Cl_2)

Source of chirality: commercially available estrone

Absolute configuration at the new stereocentre: 17*R*

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Tetrahedron: Asymmetry 12 (2001) 801



$C_{30}H_{38}O_3$

Compound **17b**

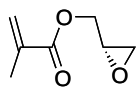
$[\alpha]_D^{25} = +14.5$ (c 0.7, CH_2Cl_2)

Source of chirality: commercially available estrone

Absolute configuration at the new stereocentre: 17*R*

Alice Rolland, Damien Hérault, François Touchard,
Christine Saluzzo, Raphaël Duval and Marc Lemaire*

Tetrahedron: Asymmetry 12 (2001) 811



$C_7H_{11}O_3$

(*S*)-Glycidyl methacrylate

Ee = 99.8%

$[\alpha]_D = +29.3$ (c = 0.564, CH_2Cl_2)

Source of chirality: hydrolytic kinetic resolution

Absolute configuration: (*S*)