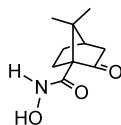


Hsyueh-Liang Wu and Biing-Jiun Uang*

Tetrahedron: Asymmetry 13 (2002) 2625C₁₀H₁₅NO₃(1*S*,4*R*)-7,7-Dimethyl-2-oxobicyclo[2.2.1]heptane-1-carbohydroxamic acid

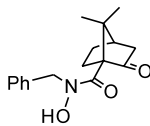
E.e. >99%

 $[\alpha]_D^{23} +130.8$ (c 1.20, CHCl₃)

Source of chirality: (+)-ketopininc acid

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

Hsyueh-Liang Wu and Biing-Jiun Uang*

Tetrahedron: Asymmetry 13 (2002) 2625C₁₇H₂₁NO₃(1*S*,4*R*)-*N*-Benzyl-7,7-dimethyl-2-oxobicyclo[2.2.1]heptane-1-carbohydroxamic acid

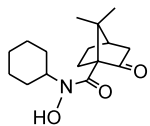
E.e. >99%

 $[\alpha]_D^{23} -82.6$ (c 1.0, CHCl₃)

Source of chirality: (+)-ketopininc acid

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

Hsyueh-Liang Wu and Biing-Jiun Uang*

Tetrahedron: Asymmetry 13 (2002) 2625C₁₆H₂₅NO₃(1*S*,4*R*)-*N*-Cyclohexyl-7,7-dimethyl-2-oxobicyclo[2.2.1]heptane-1-carbohydroxamic acid

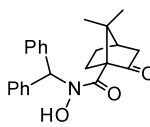
E.e. >99%

 $[\alpha]_D^{23} -58.9$ (c 1.0, CHCl₃)

Source of chirality: (+)-ketopininc acid

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

Hsyueh-Liang Wu and Biing-Jiun Uang*

Tetrahedron: Asymmetry 13 (2002) 2625C₂₃H₂₅NO₃(1*S*,4*R*)-*N*-Benzhydryl-7,7-dimethyl-2-oxobicyclo[2.2.1]heptane-1-carbohydroxamic acid

E.e. >99%

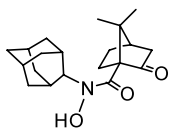
 $[\alpha]_D^{23} -47.2$ (c 1.0, CHCl₃)

Source of chirality: (+)-ketopininc acid

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

Hsyueh-Liang Wu and Biing-Jiun Uang*

Tetrahedron: Asymmetry 13 (2002) 2625



$C_{20}H_{29}NO_3$

(1*S*,4*R*)-*N*-Adamantyl-7,7-dimethyl-2-oxobicyclo[2.2.1]heptane-1-carbohydroxamic acid

E.e. >99%

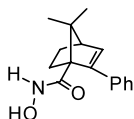
$[\alpha]_D^{22} -43.0$ (*c* 1.0, $CHCl_3$)

Source of chirality: (+)-ketopinic acid

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

Hsyueh-Liang Wu and Biing-Jiun Uang*

Tetrahedron: Asymmetry 13 (2002) 2625



$C_{16}H_{19}NO_2$

(1*S*,4*R*)-7,7-Dimethyl-2-phenylbicyclo[2.2.1]heptane-1-carbohydroxamic acid

E.e. >99%

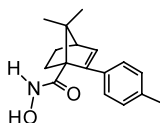
$[\alpha]_D^{22} -156.9$ (*c* 1.0, $CHCl_3$)

Source of chirality: (+)-ketopinic acid

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

Hsyueh-Liang Wu and Biing-Jiun Uang*

Tetrahedron: Asymmetry 13 (2002) 2625



$C_{17}H_{21}NO_2$

(1*S*,4*R*)-7,7-Dimethyl-2-(4-methylphenyl)bicyclo[2.2.1]heptane-1-carbohydroxamic acid

E.e. >99%

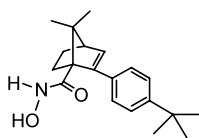
$[\alpha]_D^{22} -190.2$ (*c* 1.0, $CHCl_3$)

Source of chirality: (+)-ketopinic acid

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

Hsyueh-Liang Wu and Biing-Jiun Uang*

Tetrahedron: Asymmetry 13 (2002) 2625



$C_{20}H_{27}NO_2$

(1*S*,4*R*)-7,7-Dimethyl-2-[4-(*t*-butyl)phenyl]bicyclo[2.2.1]heptane-1-carbohydroxamic acid

E.e. >99%

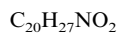
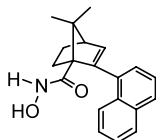
$[\alpha]_D^{22} -177.6$ (*c* 1.0, $CHCl_3$)

Source of chirality: (+)-ketopinic acid

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

Hsyueh-Liang Wu and Biing-Jiun Uang*

Tetrahedron: Asymmetry 13 (2002) 2625



(1*S*,4*R*)-7,7-Dimethyl-2-(1-naphthyl)bicyclo[2.2.1]heptane-1-carbohydroxamic acid

E.e. >99%

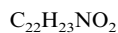
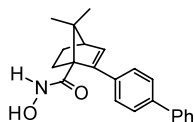
$[\alpha]_D^{22} -94.2$ (c 1.0, $CHCl_3$)

Source of chirality: (+)-ketopinic acid

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

Hsyueh-Liang Wu and Biing-Jiun Uang*

Tetrahedron: Asymmetry 13 (2002) 2625



(1*S*,4*R*)-7,7-Dimethyl-2-(4-biphenyl)bicyclo[2.2.1]heptane-1-carbohydroxamic acid

E.e. >99%

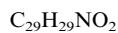
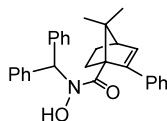
$[\alpha]_D^{23} -111.2$ (c 1.62, $CHCl_3$)

Source of chirality: (+)-ketopinic acid

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

Hsyueh-Liang Wu and Biing-Jiun Uang*

Tetrahedron: Asymmetry 13 (2002) 2625



(1*S*,4*R*)-*N*-Benzhydryl-7,7-dimethyl-2-phenylbicyclo[2.2.1]heptane-1-carbohydroxamic acid

E.e. >99%

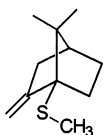
$[\alpha]_D^{22} -106.0$ (c 1.0, $CHCl_3$)

Source of chirality: (+)-ketopinic acid

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

Antonio García Martínez,* Enrique Teso Vilar,*
Florencio Moreno Jiménez, Ana María Álvarez García
and Patricia Pinilla Rodríguez

Tetrahedron: Asymmetry 13 (2002) 2635



(1*S*)-7,7-Dimethyl-2-methylene-1-(methylsulfanyl)bicyclo[2.2.1]heptane

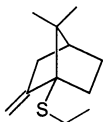
$[\alpha]_D^{20} -32.1$ (c 5.58, CH_2Cl_2)

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

Absolute configuration: 1*S*

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Tetrahedron: Asymmetry 13 (2002) 2635



(1*S*)-1-(Ethylsulfanyl)-7,7-dimethyl-2-methylenebicyclo[2.2.1]heptane

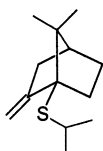
$[\alpha]_D^{20} -22.3$ (*c* 0.40, CH_2Cl_2)

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

Absolute configuration: 1*S*

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Tetrahedron: Asymmetry 13 (2002) 2635



(1*S*)-1-(Isopropylsulfanyl)-7,7-dimethyl-2-methylenebicyclo[2.2.1]heptane

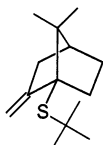
$[\alpha]_D^{20} -21.4$ (*c* 1.99, CH_2Cl_2)

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

Absolute configuration: 1*S*

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Tetrahedron: Asymmetry 13 (2002) 2635



(1*S*)-1-(*tert*-Butylsulfanyl)-7,7-dimethyl-2-methylenebicyclo[2.2.1]heptane

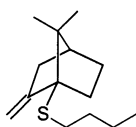
$[\alpha]_D^{20} +4.8$ (*c* 1.43, CH_2Cl_2)

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

Absolute configuration: 1*S*

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Florencio Moreno Jiménez, Ana María Álvarez García
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Tetrahedron: Asymmetry 13 (2002) 2635



(1*S*)-1-(Butylsulfanyl)-7,7-dimethyl-2-methylenebicyclo[2.2.1]heptane

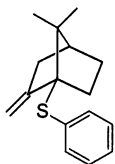
$[\alpha]_D^{20} -25.2$ (*c* 1.16, CH_2Cl_2)

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

Absolute configuration: 1*S*

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Tetrahedron: Asymmetry 13 (2002) 2635



C₁₆H₂₀S

(1*S*)-7,7-Dimethyl-2-methylene-1-(phenylsulfanyl)bicyclo[2.2.1]heptane

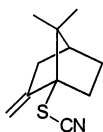
$[\alpha]_D^{20} +29.7$ (*c* 3.20, CH₂Cl₂)

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

Absolute configuration: 1*S*

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Florencio Moreno Jiménez, Ana María Álvarez García
and Patricia Pinilla Rodríguez

Tetrahedron: Asymmetry 13 (2002) 2635



C₁₁H₁₅NS

(1*S*)-7,7-Dimethyl-2-methylenebicyclo[2.2.1]hept-1-yl thiocyanate

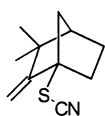
$[\alpha]_D^{20} -43.3$ (*c* 1.59, CH₂Cl₂)

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

Absolute configuration: 1*S*

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Florencio Moreno Jiménez, Ana María Álvarez García
and Patricia Pinilla Rodríguez

Tetrahedron: Asymmetry 13 (2002) 2635



C₁₁H₁₅NS

(1*R*)-3,3-Dimethyl-2-methylenebicyclo[2.2.1]hept-1-yl thiocyanate

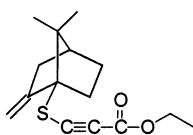
$[\alpha]_D^{20} -45.6$ (*c* 2.04, CH₂Cl₂)

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

Absolute configuration: 1*R*

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and Patricia Pinilla Rodríguez

Tetrahedron: Asymmetry 13 (2002) 2635



C₁₅H₂₀O₂S

Ethyl 3-{{(1*S*)-7,7-dimethyl-2-methylenebicyclo[2.2.1]hept-1-yl}sulfanyl}-2-propynoate

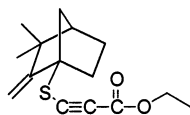
$[\alpha]_D^{20} -31.4$ (*c* 2.39, CH₂Cl₂)

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

Absolute configuration: 1*S*

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Florencio Moreno Jiménez, Ana María Álvarez García
and Patricia Pinilla Rodríguez

Tetrahedron: Asymmetry 13 (2002) 2635



$C_{15}H_{20}O_2S$

Ethyl 3-[[*(1R)*-3,3-dimethyl-2-methylenebicyclo[2.2.1]hept-1-yl]sulfanyl]-2-propynoate

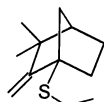
$[\alpha]_D^{20} -74.2$ (*c* 1.46, CH_2Cl_2)

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

Absolute configuration: *1R*

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Florencio Moreno Jiménez, Ana María Álvarez García
and Patricia Pinilla Rodríguez

Tetrahedron: Asymmetry 13 (2002) 2635



$C_{12}H_{20}S$

(*1R*)-1-(Ethylsulfanyl)-3,3-dimethyl-2-methylenebicyclo[2.2.1]heptane

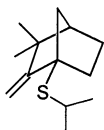
$[\alpha]_D^{20} -54.6$ (*c* 0.93, CH_2Cl_2)

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

Absolute configuration: *1R*

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Florencio Moreno Jiménez, Ana María Álvarez García
and Patricia Pinilla Rodríguez

Tetrahedron: Asymmetry 13 (2002) 2635



$C_{13}H_{22}S$

(*1R*)-1-(Isopropylsulfanyl)-3,3-dimethyl-2-methylenebicyclo[2.2.1]heptane

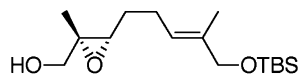
$[\alpha]_D^{20} -87.2$ (*c* 2.10, CH_2Cl_2)

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

Absolute configuration: *1R*

Yoshiki Morimoto,* Toshiyuki Iwai, Yoshihiro Nishikawa
and Takamasa Kinoshita

Tetrahedron: Asymmetry 13 (2002) 2641



$C_{16}H_{32}O_3Si$

(*2S,3S,6E*)-8-*tert*-Butyldimethylsilyloxy-2,7-dimethyl-2,3-epoxyoct-6-en-1-ol

$E_e = 98\%$

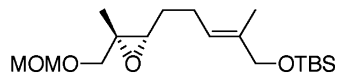
$[\alpha]_D^{24} = -9.80$ (*c* 1.02, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Yoshiki Morimoto,* Toshiyuki Iwai, Yoshihiro Nishikawa
and Takamasa Kinoshita

Tetrahedron: Asymmetry 13 (2002) 2641



$C_{18}H_{36}O_4Si$

(2*E*,6*S*,7*S*)-1-*tert*-Butyldimethylsilyloxy-8-methoxymethoxy-2,7-dimethyl-6,7-epoxyoct-2-ene

Ee=98%

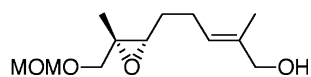
$[\alpha]_D^{25} = -5.25$ (c 1.00, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (6*S*,7*S*)

Yoshiki Morimoto,* Toshiyuki Iwai, Yoshihiro Nishikawa
and Takamasa Kinoshita

Tetrahedron: Asymmetry 13 (2002) 2641



$C_{12}H_{22}O_4$

(2*E*,6*S*,7*S*)-8-Methoxymethoxy-2,7-dimethyl-6,7-epoxyoct-2-en-1-ol

Ee=98%

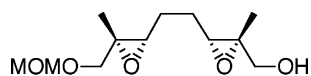
$[\alpha]_D^{24} = -3.85$ (c 0.73, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (6*S*,7*S*)

Yoshiki Morimoto,* Toshiyuki Iwai, Yoshihiro Nishikawa
and Takamasa Kinoshita

Tetrahedron: Asymmetry 13 (2002) 2641



$C_{12}H_{22}O_5$

(2*R*,3*R*,6*S*,7*S*)-8-Methoxymethoxy-2,7-dimethyl-2,3-epoxy-6,7-epoxyoctan-1-ol

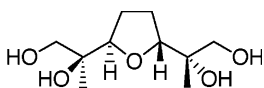
$[\alpha]_D^{25} = -2.66$ (c 1.10, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (2*R*,3*R*,6*S*,7*S*)

Yoshiki Morimoto,* Toshiyuki Iwai, Yoshihiro Nishikawa
and Takamasa Kinoshita

Tetrahedron: Asymmetry 13 (2002) 2641



$C_{10}H_{20}O_5$

(2*R*,5*R*)-2,5-Bis[(1*S*)-1,2-dihydroxy-1-methylethyl]tetrahydrofuran

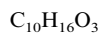
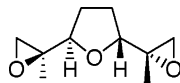
$[\alpha]_D^{25} = +6.27$ (c 1.13, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (2*R*,5*R*)-[(1*S*)]

Yoshiki Morimoto,* Toshiyuki Iwai, Yoshihiro Nishikawa and Takamasa Kinoshita

Tetrahedron: Asymmetry 13 (2002) 2641



(2*R*,5*R*)-2,5-Bis[(1*S*)-1-methyl-1,2-epoxyethyl]tetrahydrofuran

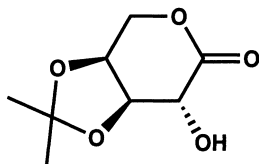
$[\alpha]_D^{25} = +9.75$ (*c* 0.843, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (2*R*,5*R*)-[(1*S*)]

Alistair J. Stewart, Richard M. Evans,
Alexander C. Weymouth-Wilson, Andrew R. Cowley,
David J. Watkin and George W. J. Fleet*

Tetrahedron: Asymmetry 13 (2002) 2667



3,4-*O*-Isopropylidene-*L*-arabinono-1,5-lactone

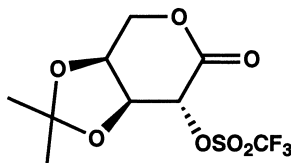
E.e. = 100%

$[\alpha]_D^{21} = -29.2$ (*c* 1.01, CHCl₃)

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

Alistair J. Stewart, Richard M. Evans,
Alexander C. Weymouth-Wilson, Andrew R. Cowley,
David J. Watkin and George W. J. Fleet*

Tetrahedron: Asymmetry 13 (2002) 2667



3,4-*O*-Isopropylidene-2-*O*-trifluoromethanesulfonyl-*L*-arabinono-1,5-lactone

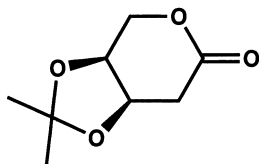
E.e. = 100%

$[\alpha]_D^{20} = +24.5$ (*c* 1.04, CHCl₃)

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

Alistair J. Stewart, Richard M. Evans,
Alexander C. Weymouth-Wilson, Andrew R. Cowley,
David J. Watkin and George W. J. Fleet*

Tetrahedron: Asymmetry 13 (2002) 2667



2-Deoxy-3,4-*O*-isopropylidene-*L*-ribo-1,5-lactone

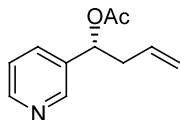
E.e. = 100%

$[\alpha]_D^{23} = +148.1$ (*c* 1.03, CHCl₃)

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

Satwinder Singh, Subodh Kumar and Swapandeeep Singh Chimni*

Tetrahedron: Asymmetry 13 (2002) 2679



$C_{11}H_{13}NO_2$

(*R*)-1-(3-Pyridyl)-but-3-en-1-yl acetate

Ee=98%

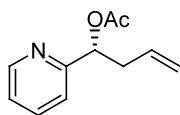
$[\alpha]_D = +55.1$ (*c* 1.40, CH_2Cl_2)

Source of chirality: enzymatic resolution

Absolute configuration: **1R**

Satwinder Singh, Subodh Kumar and Swapandeeep Singh Chimni*

Tetrahedron: Asymmetry 13 (2002) 2679



$C_{11}H_{13}NO_2$

(*R*)-1-(2-Pyridyl)-but-3-en-1-yl acetate

Ee=99%

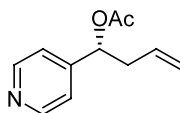
$[\alpha]_D = +78.7$ (*c* 1.50, CH_2Cl_2)

Source of chirality: enzymatic resolution

Absolute configuration: **1R**

Satwinder Singh, Subodh Kumar and Swapandeeep Singh Chimni*

Tetrahedron: Asymmetry 13 (2002) 2679



$C_{11}H_{13}NO_2$

(*R*)-1-(4-Pyridyl)-but-3-en-1-yl acetate

Ee=99%

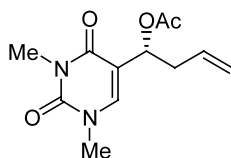
$[\alpha]_D = +58.7$ (*c* 1.30, CH_2Cl_2)

Source of chirality: enzymatic resolution

Absolute configuration: **1R**

Satwinder Singh, Subodh Kumar and Swapandeeep Singh Chimni*

Tetrahedron: Asymmetry 13 (2002) 2679



$C_{12}H_{16}N_2O_4$

(*R*)-5-(1-Acetoxy-but-3-enyl)-1,3-dimethyl-1*H*-pyrimidine-2,4-dione

Ee=98%

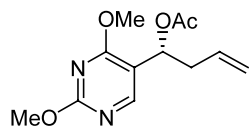
$[\alpha]_D = +66.5$ (*c* 0.52, CH_2Cl_2)

Source of chirality: enzymatic resolution

Absolute configuration: **1R**

Satwinder Singh, Subodh Kumar and Swapandeep Singh Chimni*

Tetrahedron: Asymmetry 13 (2002) 2679



(*R*)-1-(2,4-Dimethoxy-pyrimidin-5-yl)-but-3-en-1-yl acetate

Ee=95%

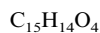
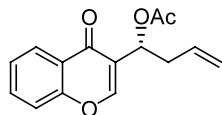
$[\alpha]_D = +49.4$ (*c* 1.05, CH_2Cl_2)

Source of chirality: enzymatic resolution

Absolute configuration: **1R**

Satwinder Singh, Subodh Kumar and Swapandeep Singh Chimni*

Tetrahedron: Asymmetry 13 (2002) 2679



(*R*)-3-(1-Acetoxy-but-3-enyl)-chromen-4-one

Ee=97%

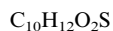
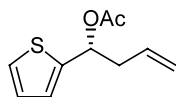
$[\alpha]_D = +51.2$ (*c* 0.82, CH_2Cl_2)

Source of chirality: enzymatic resolution

Absolute configuration: **1R**

Satwinder Singh, Subodh Kumar and Swapandeep Singh Chimni*

Tetrahedron: Asymmetry 13 (2002) 2679



(*R*)-1-(2-Thienyl)-but-3-en-1-yl acetate

Ee=98%

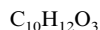
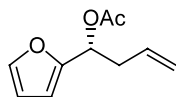
$[\alpha]_D = +35.21$ (*c* 1.40, CH_2Cl_2)

Source of chirality: enzymatic resolution

Absolute configuration: **1R**

Satwinder Singh, Subodh Kumar and Swapandeep Singh Chimni*

Tetrahedron: Asymmetry 13 (2002) 2679



(*R*)-1-(2-Furyl)-but-3-en-1-yl acetate

Ee=96%

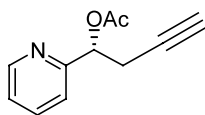
$[\alpha]_D = +23.2$ (*c* 1.06, CH_2Cl_2)

Source of chirality: enzymatic resolution

Absolute configuration: **1R**

Satwinder Singh, Subodh Kumar and Swapandeeep Singh Chimni*

Tetrahedron: Asymmetry 13 (2002) 2679



C₁₁H₁₁NO₂

(*R*)-1-(3-Pyridyl)-but-3-yn-1-yl acetate

Ee=98%

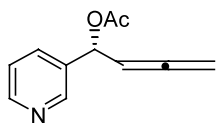
[α]_D=+49.25 (c 1.30, CH₂Cl₂)

Source of chirality: enzymatic resolution

Absolute configuration: **1R**

Satwinder Singh, Subodh Kumar and Swapandeeep Singh Chimni*

Tetrahedron: Asymmetry 13 (2002) 2679



C₁₁H₁₁NO₂

(*R*)-1-(3-Pyridyl)-buta-2,3-dien-1-yl acetate

Ee=94%

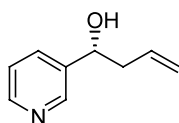
[α]_D=-63.9 (c 0.81, CH₂Cl₂)

Source of chirality: enzymatic resolution

Absolute configuration: **1R**

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Tetrahedron: Asymmetry 13 (2002) 2679



C₉H₁₁NO

(*R*)-1-(3-Pyridyl)-but-3-en-1-ol

Ee=98%

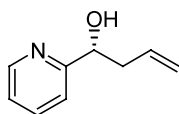
[α]_D=+48.4 (c 0.90, CH₂Cl₂)

Source of chirality: enzymatic resolution

Absolute configuration: **1R**

Satwinder Singh, Subodh Kumar and Swapandeeep Singh Chimni*

Tetrahedron: Asymmetry 13 (2002) 2679



C₉H₁₁NO

(*R*)-1-(2-Pyridyl)-but-3-en-1-ol

Ee=99%

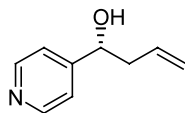
[α]_D=+47.1 (c 1.20, CH₂Cl₂)

Source of chirality: enzymatic resolution

Absolute configuration: **1R**

Satwinder Singh, Subodh Kumar and Swapandeep Singh Chimni*

Tetrahedron: Asymmetry 13 (2002) 2679



C₉H₁₁NO

(*R*)-1-(4-Pyridyl)-but-3-en-1-ol

E_e=99%

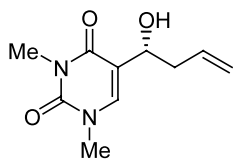
[α]_D=+70.0 (c 0.95, CH₂Cl₂)

Source of chirality: enzymatic resolution

Absolute configuration: **1R**

Satwinder Singh, Subodh Kumar and Swapandeep Singh Chimni*

Tetrahedron: Asymmetry 13 (2002) 2679



C₁₀H₁₄N₂O₃

(*R*)-5-(1-Hydroxy-but-3-enyl)-1,3-dimethyl-1*H*-pyrimidine-2,4-dione

E_e=98%

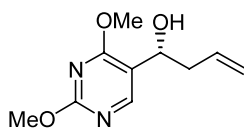
[α]_D=+55.4 (c 0.37, CH₂Cl₂)

Source of chirality: enzymatic resolution

Absolute configuration: **1R**

Satwinder Singh, Subodh Kumar and Swapandeep Singh Chimni*

Tetrahedron: Asymmetry 13 (2002) 2679



C₁₀H₁₄N₂O₃

(*R*)-1-(2,4-Dimethoxy-pyrimidin-5-yl)-but-3-en-1-ol

E_e=91%

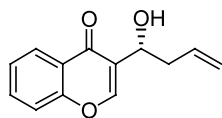
[α]_D=+60.5 (c 0.92, CH₂Cl₂)

Source of chirality: enzymatic resolution

Absolute configuration: **1R**

Satwinder Singh, Subodh Kumar and Swapandeep Singh Chimni*

Tetrahedron: Asymmetry 13 (2002) 2679



C₁₃H₁₂O₃

(*R*)-3-(1-Hydroxy-but-3-en-1-yl)-chromen-4-one

E_e=97%

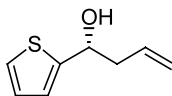
[α]_D=+54.1 (c 0.61, CH₂Cl₂)

Source of chirality: enzymatic resolution

Absolute configuration: **1R**

Satwinder Singh, Subodh Kumar and Swapandeeep Singh Chimni*

Tetrahedron: Asymmetry 13 (2002) 2679



C₈H₁₀OS

(*R*)-1-(2-Thienyl)-but-3-en-1-ol

Ee=98%

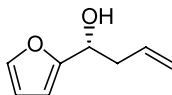
[α]_D=+10.1 (c 0.80, CH₂Cl₂)

Source of chirality: enzymatic resolution

Absolute configuration: **1R**

Satwinder Singh, Subodh Kumar and Swapandeeep Singh Chimni*

Tetrahedron: Asymmetry 13 (2002) 2679



C₈H₁₀O₂

(*R*)-1-(2-Furyl)-but-3-en-1-ol

Ee=96%

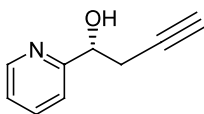
[α]_D=+37.2 (c 0.90, CH₂Cl₂)

Source of chirality: enzymatic resolution

Absolute configuration: **1R**

Satwinder Singh, Subodh Kumar and Swapandeeep Singh Chimni*

Tetrahedron: Asymmetry 13 (2002) 2679



C₉H₉NO

(*R*)-1-(3-Pyridyl)-but-3-yn-1-ol

Ee=98%

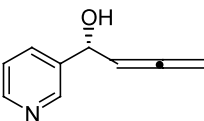
[α]_D=+48.3 (c 0.35, CH₂Cl₂)

Source of chirality: enzymatic resolution

Absolute configuration: **1R**

Satwinder Singh, Subodh Kumar and Swapandeeep Singh Chimni*

Tetrahedron: Asymmetry 13 (2002) 2679



C₉H₉NO

(*R*)-1-(3-Pyridyl)-buta-2,3-dien-1-ol

Ee=94%

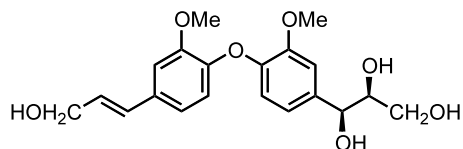
[α]_D=-71.4 (c 0.64, CH₂Cl₂)

Source of chirality: enzymatic resolution

Absolute configuration: **1R**

Yi Yang, Chenglu Zhang, Guoren Yue, Pingyan Bie and Xinfu Pan*

Tetrahedron: Asymmetry 13 (2002) 2689



(*S,S*)-2,2'-Dimethoxy-4-(3-hydroxy-1-propenyl)-4'-(1,2,3-trihydroxypropyl) diphenyl ether

E.e. = 92%

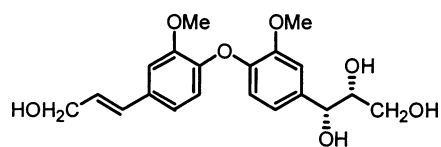
$[\alpha]_D^{25} = +0.7$ (*c* 1.0, MeOH)

Source of chirality: Sharpless asymmetric dihydroxy reaction

Absolute configuration: *S,S*

Yi Yang, Chenglu Zhang, Guoren Yue, Pingyan Bie and Xinfu Pan*

Tetrahedron: Asymmetry 13 (2002) 2689



(*R,R*)-2,2'-Dimethoxy-4-(3-hydroxy-1-propenyl)-4'-(1,2,3-trihydroxypropyl) diphenyl ether

E.e. = 92%

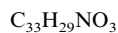
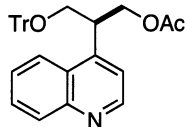
$[\alpha]_D^{25} = -1.4$ (*c* 1.0, MeOH)

Source of chirality: Sharpless asymmetric dihydroxy reaction

Absolute configuration: *R,R*

Giuseppe Guanti,* Sara Perrozzi and Renata Riva*

Tetrahedron: Asymmetry 13 (2002) 2703



(*S*)-Acetic acid 2-(quinolin-4-yl)-3-(trityloxy)propyl ester

E.e. = 98%

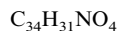
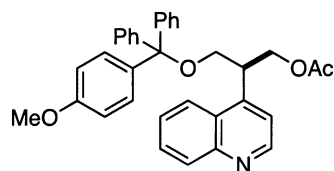
$[\alpha]_D^{25} = +31.4$ (*c* 2.06, CHCl₃)

Source of chirality: enzymatic asymmetric

Absolute configuration: *S*

Giuseppe Guanti,* Sara Perrozzi and Renata Riva*

Tetrahedron: Asymmetry 13 (2002) 2703



(*S*)-Acetic acid 3-[(*p*-methoxyphenyl)diphenyl]methoxy-2-(quinolin-4-yl)propyl ester

E.e. = 98%

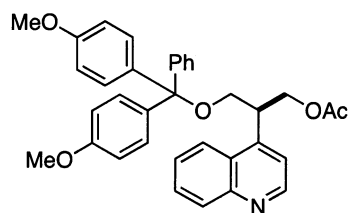
$[\alpha]_D^{25} = +30.4$ (*c* 1.08, CHCl₃)

Source of chirality: enzymatic asymmetric

Absolute configuration: *S*

Giuseppe Guanti,* Sara Perrozzi and Renata Riva*

Tetrahedron: Asymmetry 13 (2002) 2703



$C_{35}H_{33}NO_5$

(*S*)-Acetic acid 3-[[bis-(*p*-methoxyphenyl)phenyl]methoxy]-2-(quinolin-4-yl)propyl ester

E.e. = 98%

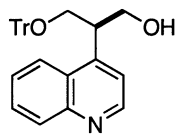
$[\alpha]_D^{25} = +33.0$ (*c* 1.31, $CHCl_3$)

Source of chirality: enzymatic asymmetric

Absolute configuration: *S*

Giuseppe Guanti,* Sara Perrozzi and Renata Riva*

Tetrahedron: Asymmetry 13 (2002) 2703



$C_{31}H_{27}NO_2$

(*R*)-2-(Quinolin-4-yl)-3-(trityloxy)propan-1-ol

E.e. = 98%

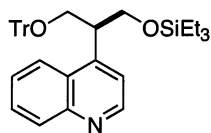
$[\alpha]_D^{25} = +59.7$ (*c* 2.18, $CHCl_3$)

Source of chirality: enzymatic asymmetric

Absolute configuration: *R*

Giuseppe Guanti,* Sara Perrozzi and Renata Riva*

Tetrahedron: Asymmetry 13 (2002) 2703



$C_{37}H_{41}NO_2Si$

(*S*)-4-[1-[(Triethylsilyl)oxymethyl]-2-(trityloxy)ethyl]quinoline

E.e. = 98%

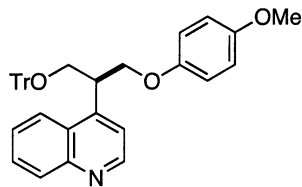
$[\alpha]_D^{25} = +15.6$ (*c* 2.06, $CHCl_3$)

Source of chirality: enzymatic asymmetric

Absolute configuration: *S*

Giuseppe Guanti,* Sara Perrozzi and Renata Riva*

Tetrahedron: Asymmetry 13 (2002) 2703



$C_{38}H_{33}NO_3$

(*S*)-4-[1-(*p*-Methoxyphenoxy)methyl]-2-(trityloxy)ethyl]quinoline

E.e. = 98%

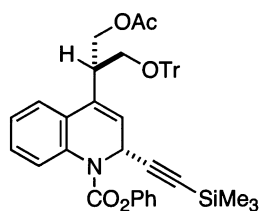
$[\alpha]_D^{25} = -13.0$ (*c* 2.00, $CHCl_3$)

Source of chirality: enzymatic asymmetric

Absolute configuration: *S*

Giuseppe Guanti,* Sara Perrozzi and Renata Riva*

Tetrahedron: Asymmetry 13 (2002) 2703



C₄₅H₄₃NO₅Si

4'-{(S)-[1-(Acetoxy)methyl-2-trityloxy]ethyl}-2-{(R)-[(trimethylsilyl)ethynyl]}-2H-quinoline-1-carboxylic acid phenyl ester

E.e. = 98%

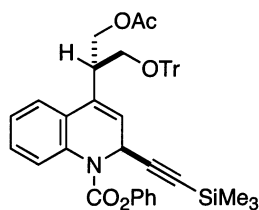
$[\alpha]_D^{25} = +115.1$ (c 1.08, CHCl₃)

Source of chirality: enzymatic asymmetric

Absolute configuration: 4'S,2R

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Tetrahedron: Asymmetry 13 (2002) 2703



C₄₅H₄₃NO₅Si

(4'S)-4-[1-(Acetoxy)methyl-2-trityloxy]ethyl]-2-{(S)-[(trimethylsilyl)ethynyl]}-2H-quinoline-1-carboxylic acid phenyl ester

E.e. = 98%

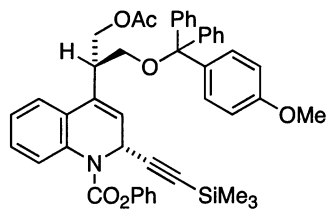
$[\alpha]_D^{25} = -83.1$ (c 0.79, CHCl₃)

Source of chirality: enzymatic asymmetric

Absolute configuration: 4'S,2S

Giuseppe Guanti,* Sara Perrozzi and Renata Riva*

Tetrahedron: Asymmetry 13 (2002) 2703



C₄₆H₄₅NO₆Si

(4'S)-4-[1-(Acetoxy)methyl-2-(p-methoxyphenyl)diphenylmethoxy]ethyl]-2-{(R)-[(trimethylsilyl)ethynyl]}-2H-quinoline-1-carboxylic acid phenyl ester

E.e. = 98%

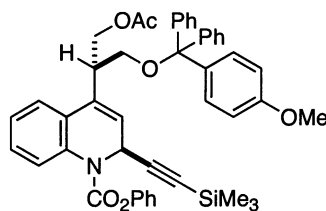
$[\alpha]_D^{25} = +207.9$ (c 1.46, CHCl₃)

Source of chirality: enzymatic asymmetric

Absolute configuration: 4'S,2R

Giuseppe Guanti,* Sara Perrozzi and Renata Riva*

Tetrahedron: Asymmetry 13 (2002) 2703



C₄₆H₄₅NO₆Si

(4'S)-4-[1-(Acetoxy)methyl-2-(p-methoxyphenyl)diphenylmethoxy]ethyl]-2-{(S)-[(trimethylsilyl)ethynyl]}-2H-quinoline-1-carboxylic acid phenyl ester

E.e. = 98%

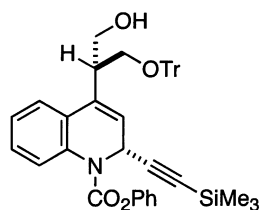
$[\alpha]_D^{25} = -179.3$ (c 0.44, CHCl₃)

Source of chirality: enzymatic asymmetric

Absolute configuration: 4'S,2S

Giuseppe Guanti,* Sara Perrozzi and Renata Riva*

Tetrahedron: Asymmetry 13 (2002) 2703



C₄₃H₄₁NO₄Si

(4'*R*)-4-([1-Hydroxymethyl-2-trityloxy]ethyl)-2-((*R*)-[(trimethylsilyl)ethynyl])-2*H*-quinoline-1-carboxylic acid phenyl ester

E.e. = 98%

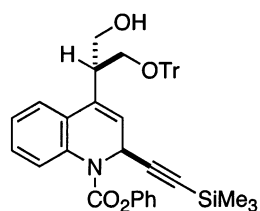
$[\alpha]_D^{25} = +255.00$ (*c* 1.75, CHCl₃)

Source of chirality: enzymatic asymmetric

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

Giuseppe Guanti,* Sara Perrozzi and Renata Riva*

Tetrahedron: Asymmetry 13 (2002) 2703



C₄₃H₄₁NO₄Si

(4'*R*)-4-([1-Hydroxymethyl-2-trityloxy]ethyl)-2-((*S*)-[(trimethylsilyl)ethynyl])-2*H*-quinoline-1-carboxylic acid phenyl ester

E.e. = 98%

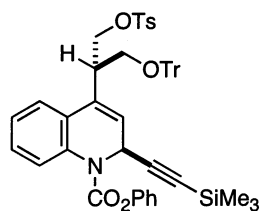
$[\alpha]_D^{25} = -227.8$ (*c* 1.16, CHCl₃)

Source of chirality: enzymatic asymmetric

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

Giuseppe Guanti,* Sara Perrozzi and Renata Riva*

Tetrahedron: Asymmetry 13 (2002) 2703



C₅₀H₄₇NO₆SSi

(4'*S*)-4-([1-(Toluene-4-sulfonyloxymethyl)-2-trityloxy]ethyl)-2-((*S*)-[(trimethylsilyl)ethynyl])-2*H*-quinoline-1-carboxylic acid phenyl ester

E.e. = 98%

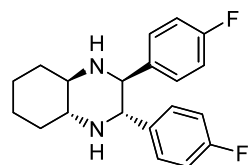
$[\alpha]_D^{25} = -60.5$ (*c* 1.32, CHCl₃)

Source of chirality: enzymatic asymmetric

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

Rita Annunziata, Maurizio Benaglia,* Marinella Caporale and Laura Raimondi*

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C₂₀H₂₂F₂N₂

(2*S*,3*S*,4*aR*,8*aR*)-2,3-Bis(4-fluorophenyl)-decahydroquinoxaline

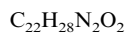
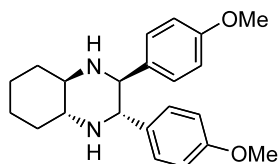
E.e. = 100%

$[\alpha]_D^{20} = -61.0$ (*c* 0.384, CH₂Cl₂)

Source of chirality: (*R,R*)-1,2-diaminocyclohexane

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(2*S*,3*S*,4*aR*,8*aR*)-2,3-Bis(4-methoxyphenyl)-decahydroquinoxaline

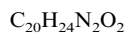
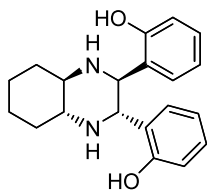
E.e. = 100%

$[\alpha]_D^{20} = -114.7$ (*c* 0.204, CH₂Cl₂)

Source of chirality: (*R,R*)-1,2-diaminocyclohexane

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(2*S*,3*S*,4*aR*,8*aR*)-2,3-Bis(2-hydroxyphenyl)-decahydroquinoxaline

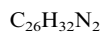
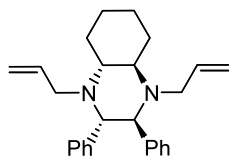
E.e. = 100%

$[\alpha]_D^{20} = -20.5$ (*c* 1.186, CH₂Cl₂)

Source of chirality: (*R,R*)-1,2-diaminocyclohexane

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(2*S*,3*S*,4*aR*,8*aR*)-2,3-Diphenyl-1,4-diallyl-decahydroquinoxaline

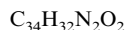
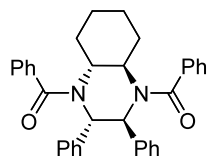
E.e. = 100%

$[\alpha]_D^{20} = -73.8$ (*c* 0.336, CH₂Cl₂)

Source of chirality: (*R,R*)-1,2-diaminocyclohexane

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(2*S*,3*S*,4*aR*,8*aR*)-2,3-Diphenyl-1,4-dibenzoyl-decahydroquinoxaline

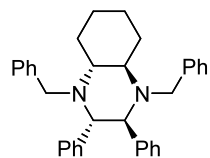
E.e. = 100%

$[\alpha]_D^{20} = +43.0$ (*c* 0.360, CH₂Cl₂)

Source of chirality: (*R,R*)-1,2-diaminocyclohexane

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$C_{34}H_{36}N_2$

(2*S*,3*S*,4*aR*,8*aR*)-2,3-Diphenyl-1,4-dibenzyl-decahydroquinoxaline

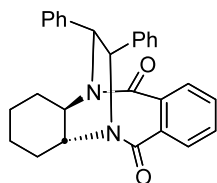
E.e. = 100%

$[\alpha]_D^{20} = -156.0$ (*c* 0.442, CH_2Cl_2)

Source of chirality: (*R,R*)-1,2-diaminocyclohexane

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$C_{28}H_{26}N_2O_2$

5,12-[[[(1*S*,2*S*)-1,2-Diphenyl]etheno]-(4*aR*,12*aR*)-1,2,3,4,4*a*,6,11,12*a*-octahydrodibenzo[*b,f*]1,4-diazocine-6,11-dione

E.e. = 100%

$[\alpha]_D^{20} = +248.0$ (*c* 0.364, CH_2Cl_2)

Source of chirality: (*R,R*)-1,2-diaminocyclohexane