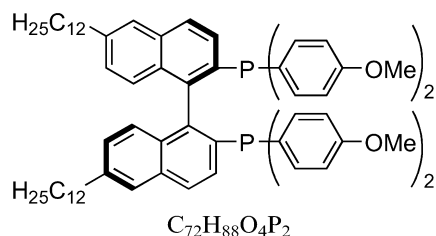


Mohamad Jahjah, Mohamad Alame, Stéphane Pellet-Rostaing* and Marc Lemaire*

Tetrahedron: Asymmetry 18 (2007) 2305



(*R*)-6,6'-Didodecyl-2,2'-bis[bis(4-methoxyphenyl)phosphino]1,1'-binaphthyl

Ee = 99%

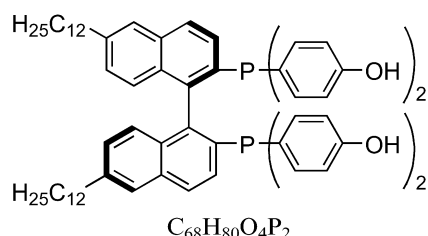
$[\alpha]_D^{25} = -25.65$ (c 0.64, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*)

Mohamad Jahjah, Mohamad Alame, Stéphane Pellet-Rostaing* and Marc Lemaire*

Tetrahedron: Asymmetry 18 (2007) 2305



(*R*)-6,6'-Didodecyl-2,2'-bis[bis(4-hydroxyphenyl)phosphino]1,1'-binaphthyl

Ee = 99%

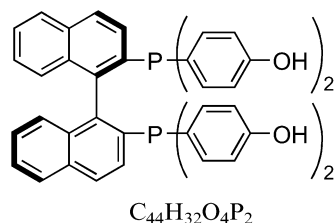
$[\alpha]_D^{25} = +42.0$ (c 0.83, CH₂Cl₂)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*)

Mohamad Jahjah, Mohamad Alame, Stéphane Pellet-Rostaing* and Marc Lemaire*

Tetrahedron: Asymmetry 18 (2007) 2305



(*R*)-2,2'-Bis[bis(4-hydroxyphenyl)phosphino]1,1'-binaphthyl

Ee = 99%

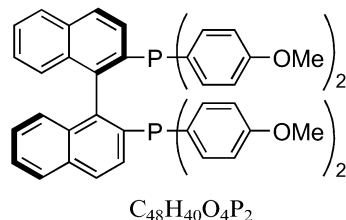
$[\alpha]_D^{25} = +29$ (c 0.9, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*)

Mohamad Jahjah, Mohamad Alame, Stéphane Pellet-Rostaing* and Marc Lemaire*

Tetrahedron: Asymmetry 18 (2007) 2305



(*R*)-2,2'-Bis[bis(4-methoxyphenyl)phosphino]1,1'-binaphthyl

Ee = 99%

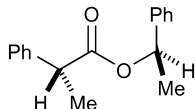
$[\alpha]_D^{25} = +107.6$ (c 0.04, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*)

Elliot Coulbeck and Jason Eames*

Tetrahedron: Asymmetry 18 (2007) 2313



1-Phenylethyl-2-phenylpropionate

Ee >98%; De >98%

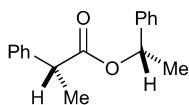
$[\alpha]_D^{20} = +10.5$ (c 3.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (R,R)

Elliot Coulbeck and Jason Eames*

Tetrahedron: Asymmetry 18 (2007) 2313



1-Phenylethyl-2-phenylpropionate

Ee >98%; De >98%

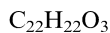
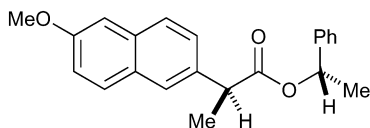
$[\alpha]_D^{20} = -60.4$ (c 1.9, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (R,S)

Elliot Coulbeck and Jason Eames*

Tetrahedron: Asymmetry 18 (2007) 2313



1-Phenylethyl-2-(6-methoxy-naphthalene-2-yl)propionate

Ee >98%; De >98%

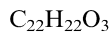
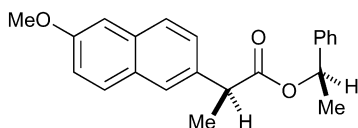
$[\alpha]_D^{20} = +26.6$ (c 3.2, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (S,S)

Elliot Coulbeck and Jason Eames*

Tetrahedron: Asymmetry 18 (2007) 2313



1-Phenylethyl-2-(6-methoxy-naphthalene-2-yl)propionate

Ee >98%; De >98%

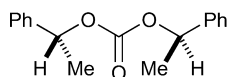
$[\alpha]_D^{20} = +8.75$ (c 1.64, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (S,R)

Elliot Coulbeck and Jason Eames*

Tetrahedron: Asymmetry 18 (2007) 2313



Di-(1-phenylethyl)-carbonate

Ee > 98%; De > 98%

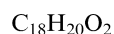
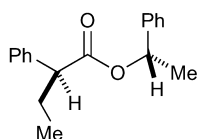
$[\alpha]_D^{20} = +116.6$ (c 0.8, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (R,R)

Elliot Coulbeck and Jason Eames*

Tetrahedron: Asymmetry 18 (2007) 2313



1-Phenylethyl-2-phenylbutyrate

Ee > 98%; De > 98%

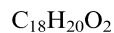
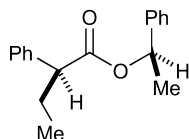
$[\alpha]_D^{20} = -12.9$ (c 6.2, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (S,S)

Elliot Coulbeck and Jason Eames*

Tetrahedron: Asymmetry 18 (2007) 2313



1-Phenylethyl-2-phenylbutyrate

Ee > 98%; De > 98%

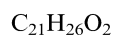
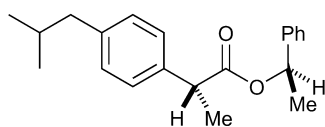
$[\alpha]_D^{20} = +56.4$ (c 1.95, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (S,R)

Elliot Coulbeck and Jason Eames*

Tetrahedron: Asymmetry 18 (2007) 2313



1-Phenylethyl 2-(4-isopropylphenyl)propionate

Ee > 98%; De > 98%

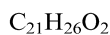
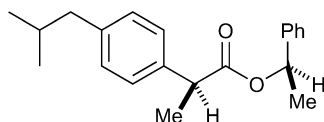
$[\alpha]_D^{20} = -14.2$ (c 9.8, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (R,R)

Elliot Coulbeck and Jason Eames*

Tetrahedron: Asymmetry 18 (2007) 2313



1-Phenylethyl 2-(4-isopropylphenyl)propionate

Ee >98%; De >98%

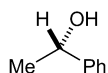
$[\alpha]_{\text{D}}^{20} = +29.4$ (c 0.65, CHCl_3)

Source of chirality: asymmetric synthesis

Absolute configuration: (S,R)

Elliot Coulbeck and Jason Eames*

Tetrahedron: Asymmetry 18 (2007) 2313



1-Phenylethanol

Ee >95%

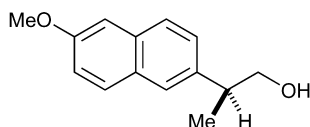
$[\alpha]_{\text{D}}^{20} = -43.0$ (c 11.4, CHCl_3)

Source of chirality: asymmetric synthesis

Absolute configuration: (S)

Elliot Coulbeck and Jason Eames*

Tetrahedron: Asymmetry 18 (2007) 2313



2-(6-Methoxy-2-naphthyl)propanol

Ee >95%

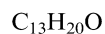
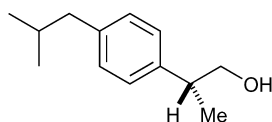
$[\alpha]_{\text{D}}^{20} = -17.7$ (c 22.0, CHCl_3)

Source of chirality: asymmetric synthesis

Absolute configuration: (S)

Elliot Coulbeck and Jason Eames*

Tetrahedron: Asymmetry 18 (2007) 2313



2-(4-Isobutylphenyl)propanol

Ee >95%

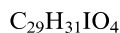
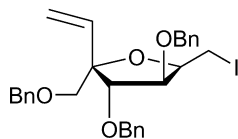
$[\alpha]_{\text{D}}^{20} = +18.5$ (c 1.6, CHCl_3)

Source of chirality: asymmetric synthesis

Absolute configuration: (R)

Yi Liu, Tian-Xiang Han, Zhen-Jun Yang, Liang-Ren Zhang and Li-He Zhang*

Tetrahedron: Asymmetry 18 (2007) 2326

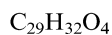
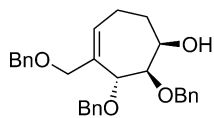


2,5-Anhydro-3,4,6-tri-*O*-benzyl-1-iodo-5-vinyl-L-manno-hexitol

$$[\alpha]_D^{20} = +18.1 (c\ 0.09, CH_2Cl_2)$$

Yi Liu, Tian-Xiang Han, Zhen-Jun Yang, Liang-Ren Zhang and Li-He Zhang*

Tetrahedron: Asymmetry 18 (2007) 2326



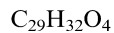
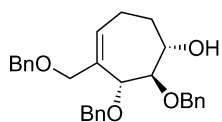
(1*R*,2*R*,3*R*)-4-Benzyloxymethyl-2,3-dibenzyloxycyclohepta-4-ene-1-ol

$$[\alpha]_D^{20} = -63.1 (c\ 0.08, MeOH)$$

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

Yi Liu, Tian-Xiang Han, Zhen-Jun Yang, Liang-Ren Zhang and Li-He Zhang*

Tetrahedron: Asymmetry 18 (2007) 2326



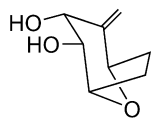
(1*S*,2*R*,3*R*)-4-Benzyloxymethyl-2,3-dibenzyloxycyclohepta-4-ene-1-ol

$$[\alpha]_D^{20} = -28.4 (c\ 0.12, MeOH)$$

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

Yi Liu, Tian-Xiang Han, Zhen-Jun Yang, Liang-Ren Zhang and Li-He Zhang*

Tetrahedron: Asymmetry 18 (2007) 2326



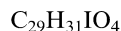
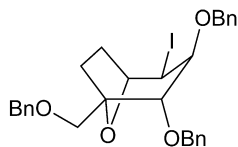
(1*S*,2*S*,3*R*,5*R*)-4-Methylene-8-oxa-bicyclo[3.2.1]octane-2,3-diol

$$[\alpha]_D^{20} = -16.7 (c\ 0.10, MeOH)$$

Absolute configuration: (1*S*,2*S*,3*R*,5*R*)

Yi Liu, Tian-Xiang Han, Zhen-Jun Yang, Liang-Ren Zhang and Li-He Zhang*

Tetrahedron: Asymmetry 18 (2007) 2326



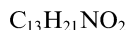
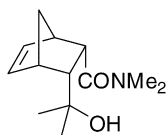
(1*S*,2*S*,3*S*,4*R*,5*S*)-2,3-Dibenzyloxy-1-benzyloxymethyl-4-iodo-8-oxa-bicyclo[3.2.1]octane

$$[\alpha]_D^{20} = -38.8 \text{ (} c \text{ 0.37, CH}_2\text{Cl}_2 \text{)}$$

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

Cihangir Tanyeli,* Serhat Odabaş, Mine Erdem, Esen Çakır and Eda Keskin

Tetrahedron: Asymmetry 18 (2007) 2349



(2*S*,3*R*)-3-(2-Hydroxypropan-2-yl)-*N,N*-dimethylbicyclo[2.2.1]hept-5-ene-2-carboxamide

Ee = 98%

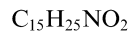
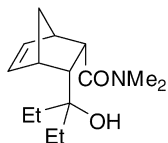
$$[\alpha]_D^{20} = +84.6 \text{ (} c \text{ 1.84, CHCl}_3 \text{)}$$

Source of chirality: asymmetric synthesis

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

Cihangir Tanyeli,* Serhat Odabaş, Mine Erdem, Esen Çakır and Eda Keskin

Tetrahedron: Asymmetry 18 (2007) 2349



(2*S*,3*R*)-3-(3-Hoxypentan-3-yl)-*N,N*-dimethylbicyclo[2.2.1]hept-5-ene-2-carboxamide

Ee = 98%

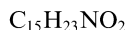
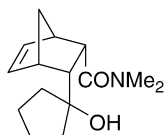
$$[\alpha]_D^{20} = +80.8 \text{ (} c \text{ 2.11, CHCl}_3 \text{)}$$

Source of chirality: asymmetric synthesis

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

Cihangir Tanyeli,* Serhat Odabaş, Mine Erdem, Esen Çakır and Eda Keskin

Tetrahedron: Asymmetry 18 (2007) 2349



(2*S*,3*R*)-3-(1-Hydroxycyclopentyl)-*N,N*-dimethylbicyclo[2.2.1]hept-5-ene-2-carboxamide

Ee = 98%

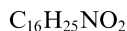
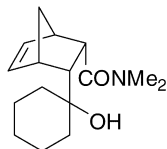
$$[\alpha]_D^{20} = +46.2 \text{ (} c \text{ 2.01, CHCl}_3 \text{)}$$

Source of chirality: asymmetric synthesis

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

Cihangir Tanyeli,* Serhat Odabaş, Mine Erdem, Esen Çakır and
Eda Keskin

Tetrahedron: Asymmetry 18 (2007) 2349



(2*S*,3*R*)-3-(1-Hydroxycyclohexyl)-*N,N*-dimethylbicyclo[2.2.1]hept-5-ene-2-carboxamide

Ee = 98%

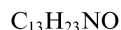
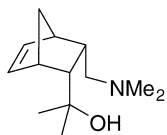
$[\alpha]_D^{20} = +52.4$ (*c* 2.00, CHCl₃)

Source of chirality: asymmetric synthesis

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

Cihangir Tanyeli,* Serhat Odabaş, Mine Erdem, Esen Çakır and
Eda Keskin

Tetrahedron: Asymmetry 18 (2007) 2349



2-((2*R*,3*S*)-3-((Dimethylamino)methyl)bicyclo[2.2.1]hept-5-en-2-yl)propan-2-ol

Ee = 98%

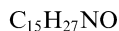
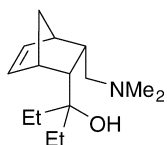
$[\alpha]_D^{20} = +17.4$ (*c* 1.37, CHCl₃)

Source of chirality: asymmetric synthesis

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

Cihangir Tanyeli,* Serhat Odabaş, Mine Erdem, Esen Çakır and
Eda Keskin

Tetrahedron: Asymmetry 18 (2007) 2349



3-((2*R*,3*S*)-3-((Dimethylamino)methyl)bicyclo[2.2.1]hept-5-en-2-yl)pentan-3-ol

Ee = 98%

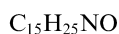
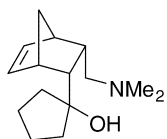
$[\alpha]_D^{20} = +17.35$ (*c* 1.30, CHCl₃)

Source of chirality: asymmetric synthesis

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

Cihangir Tanyeli,* Serhat Odabaş, Mine Erdem, Esen Çakır and
Eda Keskin

Tetrahedron: Asymmetry 18 (2007) 2349



1-((2*R*,3*S*)-3-((Dimethylamino)methyl)bicyclo[2.2.1]hept-5-en-2-yl)cyclopentanol

Ee = 98%

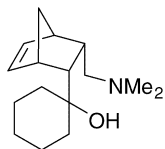
$[\alpha]_D^{20} = +11.1$ (*c* 2.56, CHCl₃)

Source of chirality: asymmetric synthesis

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

Cihangir Tanyeli,* Serhat Odabaş, Mine Erdem, Esen Çakır and Eda Keskin

Tetrahedron: Asymmetry 18 (2007) 2349



$C_{16}H_{27}NO$

1-((2*R*,3*S*)-3-((Dimethylamino)methyl)bicyclo[2.2.1]hept-5-en-2-yl)cyclohexanol

Ee = 98%

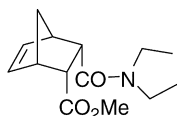
$[\alpha]_D^{20} = +3.7$ (*c* 2.16, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Cihangir Tanyeli,* Serhat Odabaş, Mine Erdem, Esen Çakır and Eda Keskin

Tetrahedron: Asymmetry 18 (2007) 2349



$C_{14}H_{21}NO_3$

(2*R*,3*S*)-Methyl 3-(diethylcarbamoyl)bicyclo[2.2.1]hept-5-ene-2-carboxylate

Ee = 98%

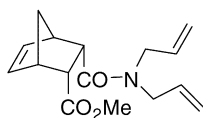
$[\alpha]_D^{20} = -32.4$ (*c* 3.00, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Cihangir Tanyeli,* Serhat Odabaş, Mine Erdem, Esen Çakır and Eda Keskin

Tetrahedron: Asymmetry 18 (2007) 2349



$C_{16}H_{21}NO_3$

(2*R*,3*S*)-Methyl 3-(diallylcarbamoyl)bicyclo[2.2.1]hept-5-ene-2-carboxylate

Ee = 98%

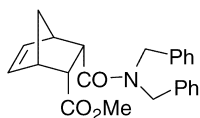
$[\alpha]_D^{20} = -43.9$ (*c* 2.03, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Cihangir Tanyeli,* Serhat Odabaş, Mine Erdem, Esen Çakır and Eda Keskin

Tetrahedron: Asymmetry 18 (2007) 2349



$C_{24}H_{25}NO_3$

(2*R*,3*S*)-Methyl 3-(dibenzylcarbamoyl)bicyclo[2.2.1]hept-5-ene-2-carboxylate

Ee = 98%

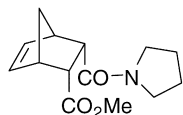
$[\alpha]_D^{20} = -34.9$ (*c* 2.03, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Cihangir Tanyeli,* Serhat Odabaş, Mine Erdem, Esen Çakır and Eda Keskin

Tetrahedron: Asymmetry 18 (2007) 2349



(2*R*,3*S*)-Methyl 3-(pyrrolidine-1-carbonyl)bicyclo[2.2.1]hept-5-ene-2-carboxylate

Ee = 98%

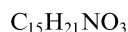
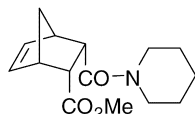
$[\alpha]_D^{20} = -24.65$ (*c* 0.10, MeOH)

Source of chirality: asymmetric synthesis

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

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(2*R*,3*S*)-Methyl 3-(piperidine-1-carbonyl)bicyclo[2.2.1]hept-5-ene-2-carboxylate

Ee = 98%

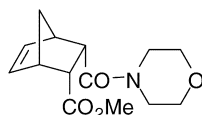
$[\alpha]_D^{20} = -21.95$ (*c* 2.00, MeOH)

Source of chirality: asymmetric synthesis

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

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(2*R*,3*S*)-Methyl 3-(morpholine-4-carbonyl)bicyclo[2.2.1]hept-5-ene-2-carboxylate

Ee = 98%

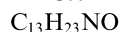
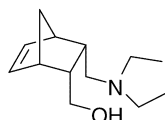
$[\alpha]_D^{20} = -32.2$ (*c* 0.20, MeOH)

Source of chirality: asymmetric synthesis

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

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((2*R*,3*S*)-3-((Dimethylamino)methyl)bicyclo[2.2.1]hept-5-en-2-yl)methanol

Ee = 98%

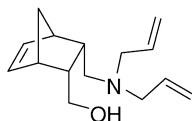
$[\alpha]_D^{20} = -6.4$ (*c* 1.80, CHCl₃)

Source of chirality: asymmetric synthesis

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

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$C_{15}H_{23}NO$

((2*R*,3*S*)-3-((Diallylamino)methyl)bicyclo[2.2.1]hept-5-en-2-yl)methanol

Ee = 98%

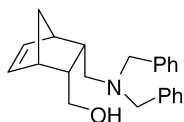
$[\alpha]_D^{20} = +15.7$ (*c* 1.00, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

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Tetrahedron: Asymmetry 18 (2007) 2349



$C_{23}H_{27}NO$

((2*R*,3*S*)-3-((Dibenzylamino)methyl)bicyclo[2.2.1]hept-5-en-2-yl)methanol

Ee = 98%

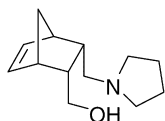
$[\alpha]_D^{20} = -33.0$ (*c* 2.00, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Cihangir Tanyeli,* Serhat Odabaş, Mine Erdem, Esen Çakır and Eda Keskin

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$C_{13}H_{21}NO$

((2*R*,3*S*)-3-(Pyrrolidin-1-ylmethyl)bicyclo[2.2.1]hept-5-en-2-yl)methanol

Ee = 98%

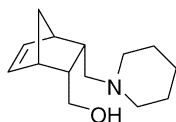
$[\alpha]_D^{20} = +1.6$ (*c* 2.00, MeOH)

Source of chirality: asymmetric synthesis

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

Cihangir Tanyeli,* Serhat Odabaş, Mine Erdem, Esen Çakır and Eda Keskin

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$C_{14}H_{23}NO$

((2*R*,3*S*)-3-(Piperidin-1-ylmethyl)bicyclo[2.2.1]hept-5-en-2-yl)methanol

Ee = 98%

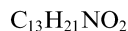
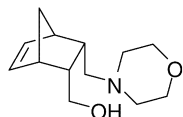
$[\alpha]_D^{20} = -3.6$ (*c* 2.00, MeOH)

Source of chirality: asymmetric synthesis

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

Cihangir Tanyeli,* Serhat Odabaş, Mine Erdem, Esen Çakır and Eda Keskin

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((2R,3S)-3-(Morpholinomethyl)bicyclo[2.2.1]hept-5-en-2-yl)methanol

Ee = 98%

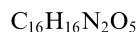
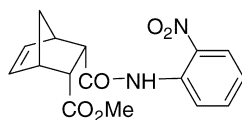
$[\alpha]_D^{20} = -4.3$ (c 2.00, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (2R,3S)

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(2R,3S)-Methyl 3-(2-nitrophenylcarbamoyl)bicyclo[2.2.1]hept-5-ene-2-carboxylate

Ee = 98%

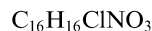
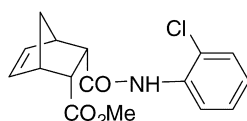
$[\alpha]_D^{20} = +7.9$ (c 2.00, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (2R,3S)

Cihangir Tanyeli,* Serhat Odabaş, Mine Erdem, Esen Çakır and Eda Keskin

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(2R,3S)-Methyl 3-(2-chlorophenylcarbamoyl)bicyclo[2.2.1]hept-5-ene-2-carboxylate

Ee = 98%

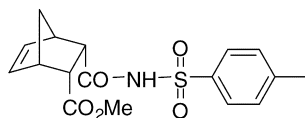
$[\alpha]_D^{20} = +58.9$ (c 2.00, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (2R,3S)

Cihangir Tanyeli,* Serhat Odabaş, Mine Erdem, Esen Çakır and Eda Keskin

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(2R,3S)-Methyl 3-(tosylcarbamoyl)bicyclo[2.2.1]hept-5-ene-2-carboxylate

Ee = 98%

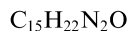
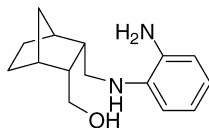
$[\alpha]_D^{20} = +16.7$ (c 2.00, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (2R,3S)

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Tetrahedron: Asymmetry 18 (2007) 2349



((2*R*,3*S*)-3-((2-Aminophenylamino)methyl)bicyclo[2.2.1]heptan-2-yl)methanol

Ee = 98%

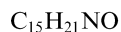
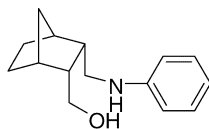
$[\alpha]_D^{20} = -116.0$ (*c* 0.10, CHCl₃)

Source of chirality: asymmetric synthesis

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

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Tetrahedron: Asymmetry 18 (2007) 2349



((2*R*,3*S*)-3-((Phenylamino)methyl)bicyclo[2.2.1]heptan-2-yl)methanol

Ee = 98%

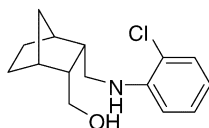
$[\alpha]_D^{20} = +5.1$ (*c* 2.00, CHCl₃)

Source of chirality: asymmetric synthesis

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

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Tetrahedron: Asymmetry 18 (2007) 2349



((2*R*,3*S*)-3-((2-Chlorophenylamino)methyl)bicyclo[2.2.1]heptan-2-yl)methanol

Ee = 98%

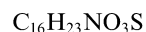
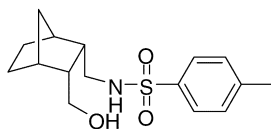
$[\alpha]_D^{20} = +10.8$ (*c* 2.00, CHCl₃)

Source of chirality: asymmetric synthesis

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

Cihangir Tanyeli,* Serhat Odabaş, Mine Erdem, Esen Çakır and Eda Keskin

Tetrahedron: Asymmetry 18 (2007) 2349



N-(((2*S*,3*R*)-3-(Hydroxymethyl)bicyclo[2.2.1]heptan-2-yl)methyl)-4-methylbenzenesulfonamide

Ee = 98%

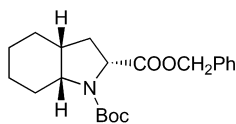
$[\alpha]_D^{20} = -13.2$ (*c* 1.00, CHCl₃)

Source of chirality: asymmetric synthesis

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

Francisco J. Sayago, Ana I. Jiménez and Carlos Cativiela*

Tetrahedron: Asymmetry 18 (2007) 2358



$C_{21}H_{29}NO_4$

Benzyl (2*R*,3*aR*,7*aR*)-*N*-(*tert*-butoxycarbonyl)octahydroindole-2-carboxylate

Ee >99%

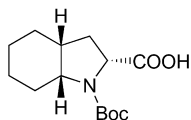
$[\alpha]_D^{25} = +38.1$ (*c* 0.96, $CHCl_3$)

Source of chirality: resolution by chiral HPLC

Absolute configuration: (2*R*,3*aR*,7*aR*)

Francisco J. Sayago, Ana I. Jiménez and Carlos Cativiela*

Tetrahedron: Asymmetry 18 (2007) 2358



$C_{14}H_{23}NO_4$

(2*R*,3*aR*,7*aR*)-*N*-(*tert*-Butoxycarbonyl)octahydroindole-2-carboxylic acid

Ee >99%

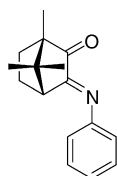
$[\alpha]_D^{25} = +22.6$ (*c* 0.50, MeOH)

Source of chirality: resolution by chiral HPLC

Absolute configuration: (2*R*,3*aR*,7*aR*)

Uroš Grošelj, Anton Meden, Branko Stanovnik and Jurij Svete*

Tetrahedron: Asymmetry 18 (2007) 2365



$C_{16}H_{19}NO$

(1*S*,3*E*,4*R*)-1,7,7-Trimethyl-3-(phenylimino)bicyclo[2.2.1]heptan-2-one

De = 100%

$[\alpha]_D^{23} = -652.1$ (*c* 0.14, $CHCl_3$)

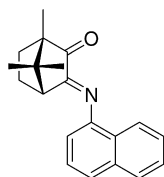
Source of chirality: (1*S*)-(+)-camphorquinone

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

E:*Z* = 96:4

Uroš Grošelj, Anton Meden, Branko Stanovnik and Jurij Svete*

Tetrahedron: Asymmetry 18 (2007) 2365



$C_{20}H_{21}NO$

(1*S*,3*E*,4*R*)-1,7,7-Trimethyl-3-[(1-naphthyl)imino]bicyclo[2.2.1]heptan-2-one

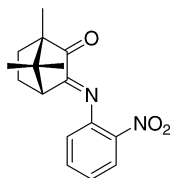
De = 100%

$[\alpha]_D^{23} = -620.8$ (*c* 0.11, $CHCl_3$)

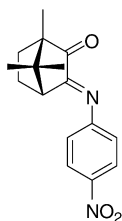
Source of chirality: (1*S*)-(+)-camphorquinone

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

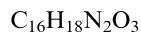
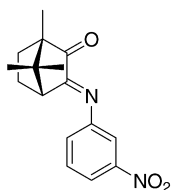
E:*Z* = 97:3

(1*S*,3*E*,4*R*)-1,7,7-Trimethyl-3-[(2-nitrophenyl)imino]bicyclo[2.2.1]heptan-2-one

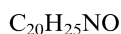
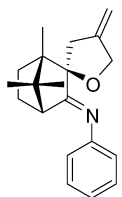
De = 100%

 $[\alpha]_{\text{D}}^{23} = -94.6$ (*c* 0.11, CHCl₃)Source of chirality: (1*S*)-(+)-camphorquinoneAbsolute configuration: (1*S*,3*E*,4*R*)*E*:*Z* = 75:25(1*S*,3*E*,4*R*)-1,7,7-Trimethyl-3-[(4-nitrophenyl)imino]bicyclo[2.2.1]heptan-2-one

De = 100%

 $[\alpha]_{\text{D}}^{23} = -358.2$ (*c* 0.17, CHCl₃)Source of chirality: (1*S*)-(+)-camphorquinoneAbsolute configuration: (1*S*,3*E*,4*R*)*E*:*Z* = 90:10(1*S*,3*E*,4*R*)-1,7,7-Trimethyl-3-[(3-nitrophenyl)imino]bicyclo[2.2.1]heptan-2-one

De = 100%

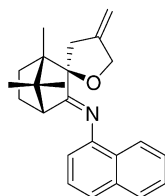
 $[\alpha]_{\text{D}}^{23} = -377.3$ (*c* 0.11, CHCl₃)Source of chirality: (1*S*)-(+)-camphorquinoneAbsolute configuration: (1*S*,3*E*,4*R*)*E*:*Z* = 89:11(3*E*)-*N*-{(1*S*,2*R*,4*R*)-1,7,7-Trimethyl-4'-methylenedihydro-3'*H*- spiro[bicyclo[2.2.1]heptane-2,2'-furan]-3-ylidene}aniline

De = 100%

 $[\alpha]_{\text{D}}^{26} = -18.0$ (*c* 0.16, CHCl₃)Source of chirality: (1*S*)-(+)-camphorquinoneAbsolute configuration: (1*S*,2*R*,4*R*)

Uroš Grošelj, Anton Meden, Branko Stanovnik and Jurij Svete*

Tetrahedron: Asymmetry 18 (2007) 2365



$C_{24}H_{27}NO$

(3E)-N-((1S,2R,4R)-1,7,7-Trimethyl-4'-methylenedihydro-3'H-spiro[bicyclo[2.2.1]heptane-2,2'-furan]-3-ylidene)naphthalen-1-amine

De = 100%

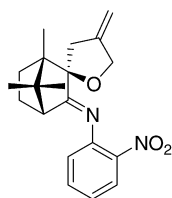
$[\alpha]_D^{26} = -36.8$ (c 0.19, $CHCl_3$)

Source of chirality: (1S)-(+)-camphorquinone

Absolute configuration: (1S,2R,4R)

Uroš Grošelj, Anton Meden, Branko Stanovnik and Jurij Svete*

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$C_{20}H_{24}N_2O_3$

(3E)-2-Nitro-N-((1S,2R,4R)-1,7,7-trimethyl-4'-methylenedihydro-3'H-spiro[bicyclo[2.2.1]heptane-2,2'-furan]-3-ylidene)aniline

De = 100%

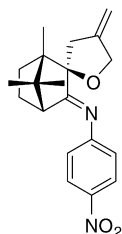
$[\alpha]_D^{23} = +133.9$ (c 0.24, $CHCl_3$)

Source of chirality: (1S)-(+)-camphorquinone

Absolute configuration: (1S,2R,4R)

Uroš Grošelj, Anton Meden, Branko Stanovnik and Jurij Svete*

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$C_{20}H_{24}N_2O_3$

(3E)-4-Nitro-N-((1S,2R,4R)-1,7,7-trimethyl-4'-methylenedihydro-3'H-spiro[bicyclo[2.2.1]heptane-2,2'-furan]-3-ylidene)aniline

De = 100%

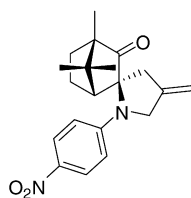
$[\alpha]_D^{23} = +32.8$ (c 0.19, $CHCl_3$)

Source of chirality: (1S)-(+)-camphorquinone

Absolute configuration: (1S,2R,4R)

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$C_{20}H_{24}N_2O_3$

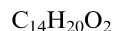
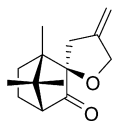
(1S,3S,4R)-1,7,7-Trimethyl-4'-methylene-1'-(4-nitrophenyl)spiro[bicyclo[2.2.1]heptane-3,2'-pyrrolidin]-2-one

De = 100%

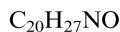
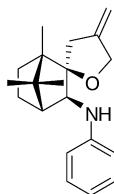
$[\alpha]_D^{23} = -237.5$ (c 0.12, $CHCl_3$)

Source of chirality: (1S)-(+)-camphorquinone

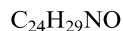
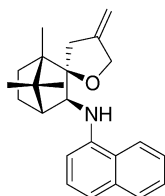
Absolute configuration: (1S,3S,4R)

(1*S*,2*R*,4*R*)-1,7,7-Trimethyl-4'-methylenedihydro-3'*H*-spiro[bicyclo[2.2.1]heptane-2,2'-furan]-3-one

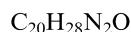
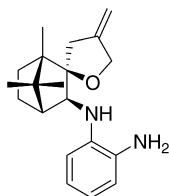
De = 100%

[α]_D²⁷ = +122.8 (*c* 0.23, CHCl₃)Source of chirality: (1*S*)-(+)-camphorquinoneAbsolute configuration: (1*S*,2*R*,4*R*)(1*S*,2*R*,3*S*,4*R*)-1,7,7-Trimethyl-4'-methylene-*N*-phenyldihydro-3'*H*-spiro[bicyclo[2.2.1]heptane-2,2'-furan]-3-amine

De = 100%

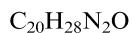
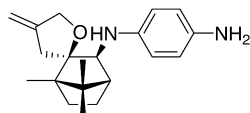
[α]₅₈₉²⁷ = +141.5 (*c* 0.27, CHCl₃)Source of chirality: (1*S*)-(+)-camphorquinoneAbsolute configuration: (1*S*,2*R*,3*S*,4*R*)(1*S*,2*R*,3*S*,4*R*)-1,7,7-Trimethyl-4'-methylene-*N*-(naphthalen-1-yl)dihydro-3'*H*-spiro[bicyclo[2.2.1]heptane-2,2'-furan]-3-amine

De = 100%

[α]₅₈₉²⁵ = +211.6 (*c* 0.07, CHCl₃)Source of chirality: (1*S*)-(+)-camphorquinoneAbsolute configuration: (1*S*,2*R*,3*S*,4*R*)N¹-[(1*S*,2*R*,3*S*,4*R*)-1,7,7-Trimethyl-4'-methylenedihydro-3'*H*-spiro[bicyclo[2.2.1]heptane-2,2'-furan]-3-yl]benzene-1,2-diamine

De = 100%

[α]₅₈₉²⁵ = +150.0 (*c* 0.09, CHCl₃)Source of chirality: (1*S*)-(+)-camphorquinoneAbsolute configuration: (1*S*,2*R*,3*S*,4*R*)



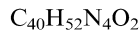
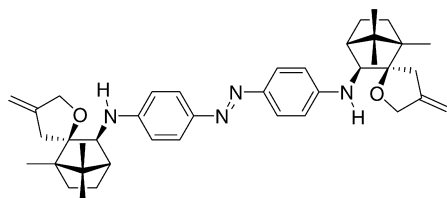
N^1 -1,2-bis(4-((1*S*,2*R*,3*S*,4*R*)-1,7,7-trimethyl-4'-methylenedihydro-3'*H*-spiro[bicyclo[2.2.1]heptane-2,2'-furan]-3-yl)benzene-1,4-diamine

De = 100%

$[\alpha]_{589}^{25} = +417.2$ (*c* 0.06, CHCl_3)

Source of chirality: (1*S*)-(+)-camphorquinone

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



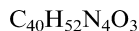
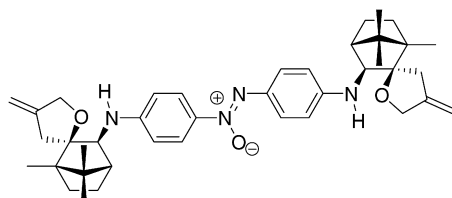
(*E*)-1,2-Bis(4-((1*S*,2*R*,3*S*,4*R*)-1,7,7-trimethyl-4'-methylenedihydro-3'*H*-spiro[bicyclo[2.2.1]heptane-2,2'-furan]-3-ylamino)phenyl)-diazene

De = 100%

$[\alpha]_{589}^{25} = +100.0$ (*c* 0.04, CHCl_3)

Source of chirality: (1*S*)-(+)-camphorquinone

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



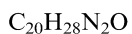
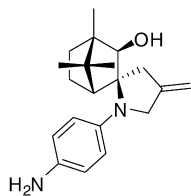
(*E*)-1,2-Bis(4-((1*S*,2*R*,3*S*,4*R*)-1,7,7-trimethyl-4'-methylenedihydro-3'*H*-spiro[bicyclo[2.2.1]heptane-2,2'-furan]-3-ylamino)phenyl)-diazene oxide

De = 100%

$[\alpha]_{589}^{25} = +85.3$ (*c* 0.03, CHCl_3)

Source of chirality: (1*S*)-(+)-camphorquinone

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



(1*R*,2*S*,3*R*,4*S*)-1'-(4-Aminophenyl)-4,7,7-trimethyl-4'-methylenespiro[bicyclo[2.2.1]heptane-2,2'-pyrrolidin]-3-ol

De = 76%

$[\alpha]_{589}^{26} = -80.2$ (*c* 0.17, CHCl_3)

Source of chirality: (1*S*)-(+)-camphorquinone

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