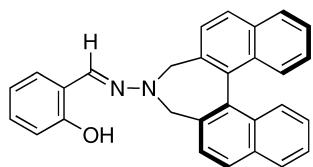


Stereochemistry abstracts

Takayoshi Arai,* Yoko Endo and Akira Yanagisawa

Tetrahedron: Asymmetry 18 (2007) 165



C₂₉H₂₂N₂O

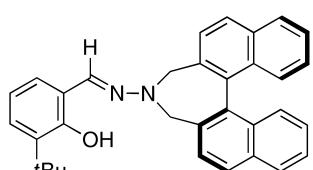
2-((E)-((R)-6,7-Dihydro-5H-dinaphtho[2,1-c;1',2'-e]azepin-6-ylimino)methyl)phenol

[α]_D²¹ = +357.1 (*c* 0.38, CHCl₃)

Source of chirality: 2,2'-binaphthol

Takayoshi Arai,* Yoko Endo and Akira Yanagisawa

Tetrahedron: Asymmetry 18 (2007) 165



C₃₃H₃₀N₂O

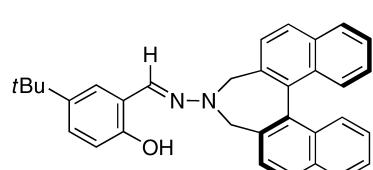
2-*tert*-Butyl-6-((E)-((R)-6,7-dihydro-5H-dinaphtho[2,1-c;1',2'-e]azepin-6-ylimino)methyl)phenol

[α]_D²⁵ = +367.7 (*c* 0.58, CHCl₃)

Source of chirality: 2,2'-binaphthol

Takayoshi Arai,* Yoko Endo and Akira Yanagisawa

Tetrahedron: Asymmetry 18 (2007) 165



C₃₃H₃₀N₂O

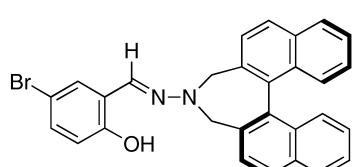
4-*tert*-Butyl-2-((E)-((R)-6,7-dihydro-5H-dinaphtho[2,1-c;1',2'-e]azepin-6-ylimino)methyl)phenol

[α]_D²⁵ = +321.7 (*c* 0.80, CHCl₃)

Source of chirality: 2,2'-binaphthol

Takayoshi Arai,* Yoko Endo and Akira Yanagisawa

Tetrahedron: Asymmetry 18 (2007) 165

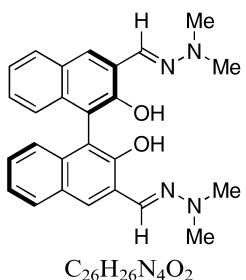


C₂₉H₂₁BrN₂O

4-Bromo-2-((E)-((R)-6,7-dihydro-5H-dinaphtho[2,1-c;1',2'-e]azepin-6-ylimino)methyl)phenol

[α]_D²⁵ = +399.6 (*c* 0.20, CHCl₃)

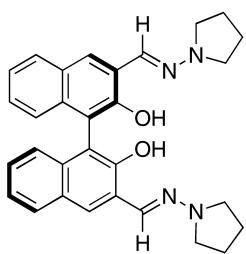
Source of chirality: 2,2'-binaphthol



(R)-3,3'-Diformyl-2,2'-binaphthol bis-N-(dimethylamino)imine

 $[\alpha]_D^{21} = -116.7$ (*c* 0.28, CHCl₃)

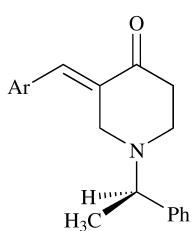
Source of chirality: 2,2'-binaphthol



(R)-3,3'-Diformyl-2,2'-binaphthol bis-N-(pyrrolidinyl)imine

 $[\alpha]_D^{21} = -128.1$ (*c* 0.13, CHCl₃)

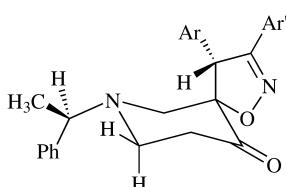
Source of chirality: 2,2'-binaphthol



3-[(E)-(4-Chlorophenyl)methylidene]-1-[(R)-1-phenylethyl]tetrahydro-4(1H)-piperidinone

 $[\alpha]_D = +19.3$ (*c* 0.21, CHCl₃)

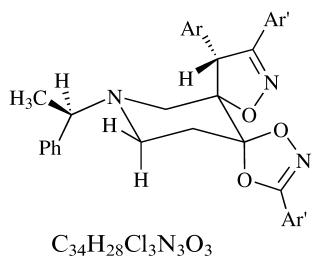
Absolute configuration: (R)



(4R,5S)-3-(4-Chlorophenyl)-4-phenyl-7-[(R)-1-phenylethyl]-1-oxa-2,7-diazaspiro[4.5]dec-2-en-10-one

 $[\alpha]_D = -256.0$ (*c* 0.20, CHCl₃)

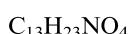
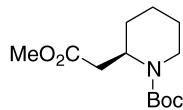
Absolute configuration: (4R,5S)



(4*R*,5*S*,10*S*)-10-(2-Chlorophenyl)-3,9-bis(4-chlorophenyl)-12-[(*R*)-1-phenylethyl]-1,4,7-trioxa-2,8,12-triazadispiro[4.0.4.4]tetradeca-2,8-diene

$[\alpha]_D = -50.0$ (*c* 0.10, CHCl₃)

Absolute configuration: (4*R*,5*S*,10*S*)



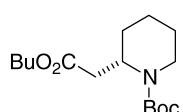
N-tert-Butoxycarbonyl-(*R*)-2-piperidylacetic acid methyl ester

Ee = 94%

$[\alpha]_D^{20} = +9.9$ (*c* 4.54, CHCl₃)

Source of chirality: enzymatic resolution by lipase PS-C II from *Burkholderia cepacia*

Absolute configuration: (*R*)



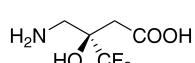
N-tert-Butoxycarbonyl-(*S*)-2-piperidylacetic acid butyl ester

Ee = 99%

$[\alpha]_D^{20} = -5.4$ (*c* 1, CHCl₃)

Source of chirality: Enzymatic resolution by lipase PS-C II from *Burkholderia cepacia*

Absolute configuration: (*S*)



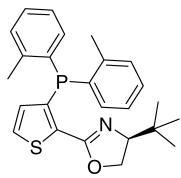
Ee >99.9%

$[\alpha]_D^{25} = +32.2$ (*c* 0.8, 1% NH₄OH in H₂O)

Source of chirality: chiral resolution

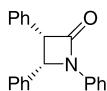
Absolute configuration: (3*R*)

$C_6H_{10}F_3NO_3$
(3*R*)-4,4,4-Trifluoro-3-hydroxy-3-(aminomethyl)-butanoic acid



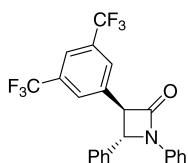
C₂₅H₂₈NOPS
(S)-4-*tert*-Butyl-2-[3-(di-*ortho*-tolylphosphino)-2-thienyl]-4,5-dihydro-1,3-oxazole

Ee = >99%
[α]_D²⁰ = -107 (*c* 0.1, CHCl₃)
Source of chirality: chiral amino alcohol
Absolute configuration: (S)



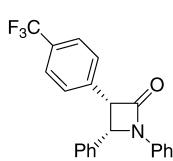
C₂₁H₁₇NO
(3*R*,4*R*)-1,3,4-Triphenyl-2-azetidinone

Ee = 37%
[α]_D²⁰ = +13 (*c* 0.1, CHCl₃)
Source of chirality: asymmetric synthesis
Absolute configuration: (3*R*,4*R*)



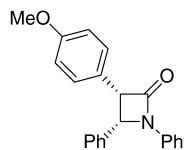
C₂₃H₁₅F₆NO
(3*R*,4*S*)-3-(3,5-Bis(trifluoromethyl)phenyl)-1,4-diphenylazetidin-2-one

Ee = 53%
[α]_D²⁰ = +19 (*c* 0.1, CHCl₃)
Source of chirality: asymmetric synthesis
Absolute configuration: (3*R*,4*S*)



C₂₂H₁₆F₃NO
(3*R*,4*R*)-1,4-Diphenyl-3-(4-(trifluoromethyl)phenyl)azetidin-2-one

Ee = 29%
[α]_D²⁰ = +3.2 (*c* 0.2, CHCl₃)
Source of chirality: asymmetric synthesis
Absolute configuration: (3*R*,4*R*)

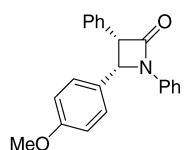


$C_{22}H_{19}NO_2$
 $(3R,4R)$ -3-(4-Methoxyphenyl)-1,4-diphenylazetidin-2-one

Ee = 10%

 $[\alpha]_D^{20} = +6.1$ (*c* 0.1, CHCl₃)

Source of chirality: asymmetric synthesis

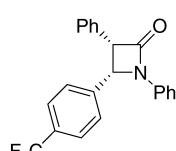
Absolute configuration: (3*R*,4*R*)

$C_{22}H_{19}NO_2$
 $(3R,4R)$ -4-(4-Methoxyphenyl)-1,3-diphenylazetidin-2-one

Ee = 32%

 $[\alpha]_D^{20} = +6.8$ (*c* 0.2, CHCl₃)

Source of chirality: asymmetric synthesis

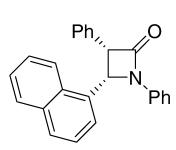
Absolute configuration: (3*R*,4*R*)

$C_{22}H_{16}F_3NO$
 $(3R,4R)$ -1,3-Diphenyl-4-(4-(trifluoromethyl)phenyl)azetidin-2-one

Ee = 48%

 $[\alpha]_D^{20} = +2.8$ (*c* 0.2, CHCl₃)

Source of chirality: asymmetric synthesis

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

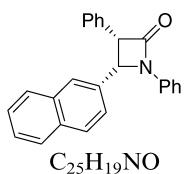
$C_{25}H_{19}NO$
 $(3R,4R)$ -4-(Naphthalen-1-yl)-1,3-diphenylazetidin-2-one

Ee = 26%

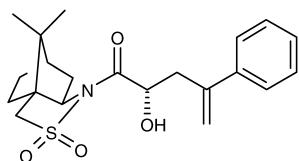
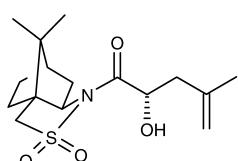
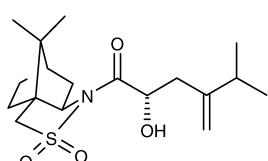
 $[\alpha]_D^{20} = +4.2$ (*c* 0.2, CHCl₃)

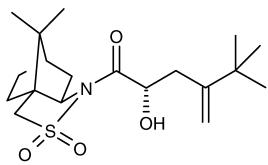
Source of chirality: asymmetric synthesis

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

(3*R*,4*R*)-4-(Naphthalen-2-yl)-1,3-diphenylazetidin-2-one $Ee = 41\%$ $[\alpha]_D^{20} = +9.1 (c \ 0.2, \text{CHCl}_3)$

Source of chirality: asymmetric synthesis

Absolute configuration: (3*R*,4*R*)(2'*S*)-*N*-(2'-Hydroxy-4'-phenylpent-4'-enoyl)-(2*R*)-bornane-10,2-sultam $[\alpha]_D^{24} = -85.7 (c \ 1.5, \text{CHCl}_3)$ Source of chirality: (2*R*)-bornane-10,2-sultamAbsolute configuration: (2'*S*)(2'*S*)-*N*-(2'-Hydroxy-4'-methylpent-4'-enoyl)-(2*R*)-bornane-10,2-sultam $[\alpha]_D^{24} = -114.9 (c \ 1.5, \text{CHCl}_3)$ Source of chirality: (2*R*)-bornane-10,2-sultamAbsolute configuration: (2'*S*)(2'*S*)-*N*-(2'-Hydroxy-5'-methyl-4'-methylenehexanoyl)-(2*R*)-bornane-10,2-sultam $[\alpha]_D^{24} = -108.8 (c \ 0.5, \text{CHCl}_3)$ Source of chirality: (2*R*)-bornane-10,2-sultamAbsolute configuration: (2'*S*)

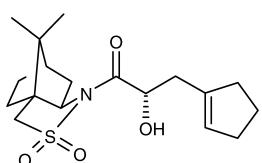


$C_{19}H_{31}NO_4S$
($2'S$)- N -($2'$ -Hydroxy- $5',5'$ -dimethyl- $4'$ -methylenehexanoyl)-($2R$)-bornane-10,2-sultam

$[\alpha]_D^{24} = -93.4$ (c 0.4, $CHCl_3$)

Source of chirality: ($2R$)-bornane-10,2-sultam

Absolute configuration: ($2'S$)

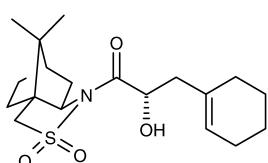


$C_{18}H_{27}NO_4S$
($2'S$)- N -[$3'$ -(Cyclopent-1-enyl)- $2'$ -hydroxypropionyl]-($2R$)-bornane-10,2-sultam

$[\alpha]_D^{24} = -100.7$ (c 1.2, $CHCl_3$)

Source of chirality: ($2R$)-bornane-10,2-sultam

Absolute configuration: ($2'S$)

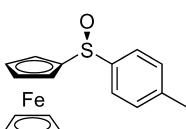


$C_{19}H_{29}NO_4S$
($2'S$)- N -[$3'$ -(Cyclohex-1-enyl)- $2'$ -hydroxypropionyl]-($2R$)-bornane-10,2-sultam

$[\alpha]_D^{24} = -106.1$ (c 1.5, $CHCl_3$)

Source of chirality: ($2R$)-bornane-10,2-sultam

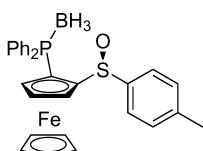
Absolute configuration: ($2'S$)



$C_{17}H_{16}FeOS$
(*S*)-*p*-Tolylsulfinylferrocene

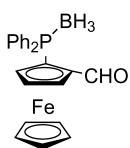
$[\alpha]_D^{20} = +314$ (c 0.525, $CHCl_3$)

Source of chirality: (*-*)-menthol



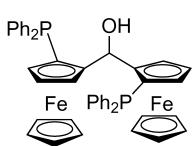
$C_{29}H_{28}BFeOPS$
 (S_{Fc},S_S) -1-p-Tolylsulfinyl-2-(diphenylphosphino)ferrocene borane complex

$[\alpha]_D^{20} = -533$ (*c* 0.545, CHCl₃)
Source of chirality: (-)-menthol



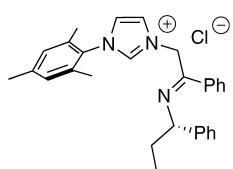
$C_{23}H_{22}BFeOPS$
(R)-2-Diphenylphosphino-ferrocenecarboxaldehyde borane complex

$[\alpha]_D^{20} = -556$ (*c* 0.2, CHCl₃)
Source of chirality: (-)-menthol



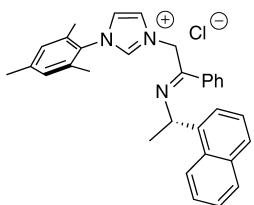
$C_{45}H_{38}Fe_2OP_2$
(R,R)-Bis[2-(diphenylphosphino)ferrocenyl]methanol

$[\alpha]_D^{20} = +400$ (*c* 0.215, CHCl₃)
Source of chirality: (-)-menthol



$C_{29}H_{32}ClN_3$
3-Mesityl-1-[2-{(S)-1(phenyl)propylimino}-2-phenyl ethyl]imidazolium chloride

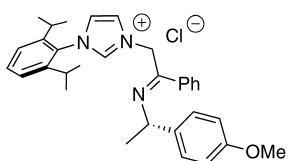
$[\alpha]_D^{20} = -26$ (*c* 1.1, CHCl₃)
Source of chirality: (S)-1(phenyl)propylamine
Absolute configuration: (S)



$C_{32}H_{32}ClN_3$
3-Mesityl-1-[2-{(S)-1-(1-naphthyl)ethylimino}-2-phenyl ethyl]imidazolium chloride

$[\alpha]_D^{20} = +97$ (*c* 1, CHCl₃)

Source of chirality: (S)-1-(1-naphthyl)ethylamine
Absolute configuration: (S)

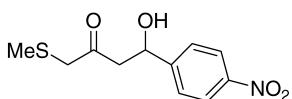


$C_{32}H_{38}ClN_3O$
3-(2,6-Diisopropylphenyl)-1-[2-{(S)-1-(*p*-methoxyphenyl)ethylimino}-2-phenyl ethyl]imidazolium chloride

$[\alpha]_D^{20} = -18$ (*c* 1, CHCl₃)

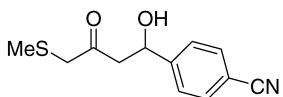
Source of chirality: (S)-1-(4-methoxyphenyl)ethylamine
Absolute configuration: (S)

$[\alpha]_D = +39.4$ (*c* 0.5, DCM)

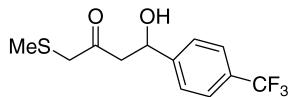


$C_{11}H_{13}NSO_4Na$
1-Methylthio-4-hydroxy-4-(4'-nitrophenyl)-butan-2-one

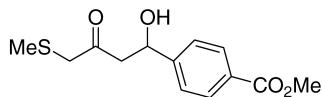
$[\alpha]_D = +43.2$ (*c* 0.225, DCM)



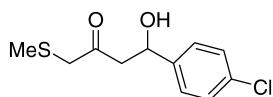
$C_{12}H_{13}N_1SO_2Na$
1-Methylthio-4-hydroxy-4-(4'-cyanophenyl)-butan-2-one

$[\alpha]_D = +40.0 \text{ (} c \text{ } 0.5, \text{ DCM)}$

 $\text{C}_{12}\text{H}_{13}\text{SO}_2\text{F}_3\text{Na}$

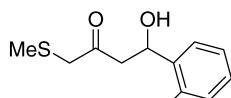
1-Methylthio-4-hydroxy-4-(4'-trifluoromethyl-phenyl)-butan-2-one

 $[\alpha]_D = +39.2 \text{ (} c \text{ } 0.5, \text{ DCM)}$

 $\text{C}_{12}\text{H}_{13}\text{SO}_2\text{F}_3\text{Na}$

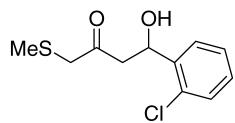
4-(4-Methylthio-1-hydroxy-3-oxo-butyl)-benzoic acid methyl ester

 $[\alpha]_D = +39.8 \text{ (} c \text{ } 0.6, \text{ DCM)}$

 $\text{C}_{11}\text{H}_{13}\text{ClO}_2\text{SNa}$

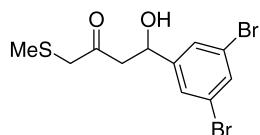
1-Methylthio-4-hydroxy-4-(4'-chlorophenyl)-butan-2-one

 $[\alpha]_D = +42.5 \text{ (} c \text{ } 0.44, \text{ DCM)}$

 $\text{C}_{11}\text{H}_{13}\text{SO}_2\text{FNa}$

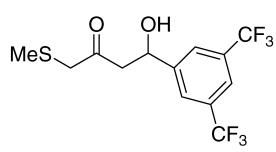
1-Methylthio-4-hydroxy-4-(2'-fluorophenyl)-butan-2-one

$[\alpha]_D = +69.5 \text{ (} c \text{ } 0.5, \text{ DCM})$


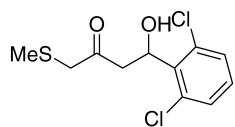
1-Methylthio-4-hydroxy-4-(2'-chlorophenyl)-butan-2-one

 $[\alpha]_D = +32.0 \text{ (} c \text{ } 0.5, \text{ DCM})$


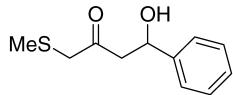
1-Methylthio-4-hydroxy-4-(3'5'-dibromophenyl)-butan-2-one

 $[\alpha]_D = +29.0 \text{ (} c \text{ } 0.5, \text{ DCM})$


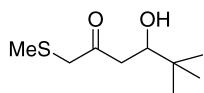
1-Methylthio-4-hydroxy-4-(3'5'-bis-trifluoromethyl-phenyl)-butan-2-one

 $[\alpha]_D = -23.9 \text{ (} c \text{ } 0.64, \text{ DCM})$


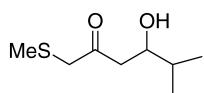
1-Methylthio-4-hydroxy-4-(2'6'-dichlorophenyl)-butan-2-one

$[\alpha]_D = +15.2 \text{ (} c \text{ } 0.5, \text{ DCM)}$

 $\text{C}_{11}\text{H}_{14}\text{SO}_2\text{Na}$

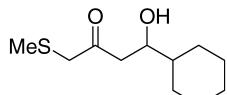
1-Methylthio-4-hydroxy-4-phenyl-butan-2-one

 $[\alpha]_D = +59.0 \text{ (} c \text{ } 0.71, \text{ DCM)}$

 $\text{C}_9\text{H}_{18}\text{SO}_2\text{Na}$

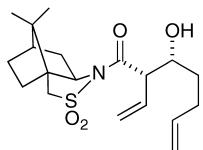
1-Methylthio-4-hydroxy-5-(5'-dimethyl)-hexan-2-one

 $[\alpha]_D = +48.9 \text{ (} c \text{ } 0.8, \text{ DCM)}$

 $\text{C}_8\text{H}_{16}\text{SO}_2\text{Na}$

1-Methylthio-4-hydroxy-5-methyl-hexan-2-one

 $[\alpha]_D = +42.8 \text{ (} c \text{ } 0.5, \text{ DCM)}$

 $\text{C}_{11}\text{H}_{20}\text{SO}_2\text{Na}$

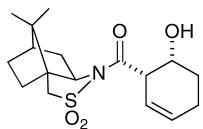
1-Methylthio-4-(cyclohexyl)-4-hydroxy-2-butanone



Ee, de >95% (NMR)

 $[\alpha]_D^{24} = +95.35$ (*c* 1.30, chloroform)

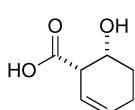
Source of chirality: asymmetric synthesis

Absolute configuration: (2*R*,3*R*) $C_{19}H_{29}NO_4S$ (+)-(2*S*)-*N*-[(2*S*,3*R*)-2-(Ethenyl)-3-(hydroxy)-6-heptenoyl]bornane-10,2-sultam

Ee, de >95% (NMR)

 $[\alpha]_D^{24} = +270.0$ (*c* 0.70, chloroform)

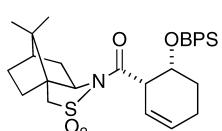
Source of chirality: asymmetric synthesis

Absolute configuration: (1*R*,2*S*) $C_{17}H_{25}NO_4S$ (+)-(2*S*)-*N*-[(1*R*,2*S*)-1-Hydroxy-3-cyclohexen-2-carbonyl]bornane-10,2-sultam

Ee, de >95% (NMR)

 $[\alpha]_D^{22} = +95.45$ (*c* 4.00, chloroform)

Source of chirality: asymmetric synthesis

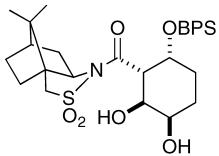
Absolute configuration: (1*S*,2*R*) $C_7H_{10}O_3$ (+)-(1*S*,2*R*)-2-Hydroxy-5-cyclohexenecarboxylic acid

Ee, de >95% (NMR)

 $[\alpha]_D^{22} = +81.0$ (*c* 0.20, chloroform)

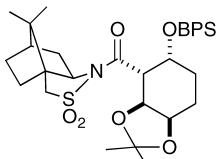
Source of chirality: asymmetric synthesis

Absolute configuration: (1*R*,2*S*) $C_{33}H_{43}NO_4SSi$ (+)-(2*S*)-*N*-[(1*R*,2*S*)-1-(((tert-Butyldiphenyl)silyl)oxy)-3-cyclohexen-2-carbonyl]bornane-10,2-sultam



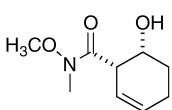
Ee, de >95% (NMR)
 $[\alpha]_D^{22} = +5.4$ (*c* 0.73, chloroform)
 Source of chirality: asymmetric synthesis
 Absolute configuration: (1*R*,2*R*,3*S*,4*R*)

$C_{33}H_{45}NO_6SSi$
 (+)-(2*S*)-*N*-[(1*R*,2*R*,3*S*,4*R*)-1-(((*tert*-Butyldiphenyl)silyl)oxy)-3,4-(dihydroxy)cyclohexan-2-carbonyl]bornane-10,2-sultam



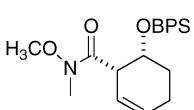
Ee, de >95% (NMR)
 $[\alpha]_D^{24} = +8.2$ (*c* 1.00, chloroform)
 Source of chirality: asymmetric synthesis
 Absolute configuration: (3a*S*,4*S*,5*R*,7*aR*)

$C_{36}H_{49}NO_6SSi$
 (+)-(2*S*)-*N*-[(3a*S*,4*S*,5*R*,7*aR*)-2,2-Dimethyl-5-(((*tert*-butyldiphenyl)silyl)oxy)hexahydro[1,3]benzodioxol-4-carbonyl]bornane-10,2-sultam



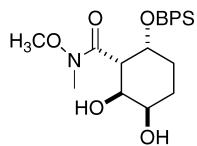
Ee, de >95% (NMR)
 $[\alpha]_D^{23} = +108.94$ (*c* 7.50, chloroform)
 Source of chirality: asymmetric synthesis
 Absolute configuration: (1*S*,2*R*)

$C_9H_{15}NO_3$
 (+)-(1*S*,2*R*)-2-(Hydroxy)-5-cyclohexenecarboxylic acid (*N*-methoxy-*N*-methyl)amide



Ee, de >95% (NMR)
 $[\alpha]_D^{24} = +83.6$ (*c* 1.95, chloroform)
 Source of chirality: asymmetric synthesis
 Absolute configuration: (1*S*,2*R*)

$C_{25}H_{33}NO_3Si$
 (+)-(1*S*,2*R*)-2-(((*tert*-Butyldiphenyl)silyl)oxy)-5-cyclohexenecarboxylic acid (*N*-methoxy-*N*-methyl)amide

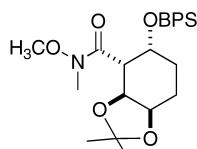


$C_{25}H_{35}NO_5Si$
 $(-)-(1S,2S,3R,6R)$ -2,3-(Dihydroxy)-6-(((tert-butyldiphenyl)silyl)oxy)cyclohexane-carboxylic acid (*N*-methoxy-*N*-methyl)amide

Ee, de >95% (NMR)

 $[\alpha]_D^{24} = -17.95$ (*c* 2.00, chloroform)

Source of chirality: asymmetric synthesis

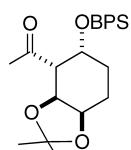
Absolute configuration: (1*S*,2*S*,3*R*,6*R*)

$C_{28}H_{39}NO_5Si$
 $(-)-(3aS,4S,5R,7aR)$ -5-(((tert-Butyldiphenyl)silyl)oxy)-2,2-dimethyl-hexahydro-[1,3]benzodioxol-4-carboxylic acid (*N*-methoxy-*N*-methyl)amide

Ee, de >95% (NMR)

 $[\alpha]_D^{24} = -84.1$ (*c* 1.00, chloroform)

Source of chirality: asymmetric synthesis

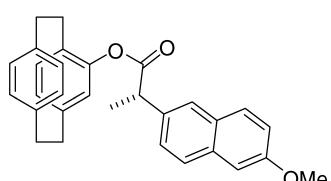
Absolute configuration: (3*aS*,4*S*,5*R*,7*aR*)

$C_{27}H_{36}O_4Si$
 $(-)-(3aS,4S,5R,7aR)$ -4-Acetyl-5-(((tert-butyldiphenyl)silyl)oxy)-2,2-dimethylhexahydro-[1,3]benzodioxole

Ee, de >95% (NMR)

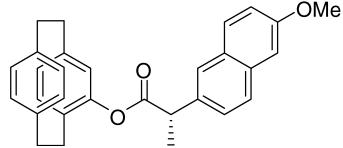
 $[\alpha]_D^{25} = -74.9$ (*c* 1.25, chloroform)

Source of chirality: asymmetric synthesis

Absolute configuration: (3*aS*,4*S*,5*R*,7*aR*)

$C_{30}H_{28}O_3$
 (S,S_p) -[2,2]Paracyclophan-4'-yl 2-(6-methoxynaphthalen-2-yl)propanoate

 $[\alpha]_D^{20} = +48.5$ (*c* 0.58, CH_2Cl_2)Source of chirality: (*S*)-naproxen acidAbsolute configuration: (*S_p*,*S*)

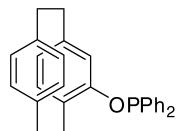


$C_{30}H_{28}O_3$
 (S,R_p) -[2,2]Paracyclophan-4'-yl 2-(6-methoxynaphthalen-2-yl)propanoate

$[\alpha]_D^{20} = +31.9$ (c 1.05, CH_2Cl_2)

Source of chirality: (*S*)-naproxen acid

Absolute configuration: (*R_p,S*)

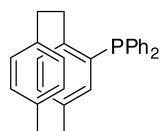


$C_{28}H_{25}OP$
 (R_p) -Diphenyl([2.2]paracyclophan-4-yl)phosphinite

$[\alpha]_D^{20} = -24.1$ (c 1.05, $CHCl_3$)

Source of chirality: (*S*)-naproxen acid

Absolute configuration: (*R_p*)

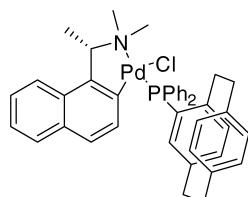


$C_{28}H_{25}P$
 (S_p) -Diphenyl([2.2]paracyclophan-4-yl)phosphine

$[\alpha]_D^{20} = -15.1$ (c 1.0, $CHCl_3$)

Source of chirality: (*S*)-1-(naphthalen-1-yl)ethanamine

Absolute configuration: (*S_p*)

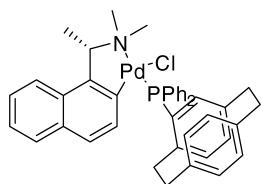
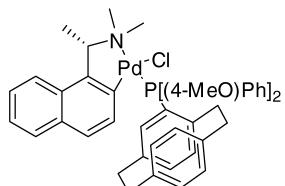
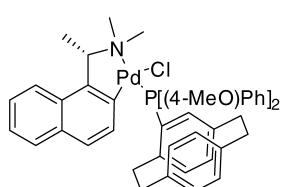
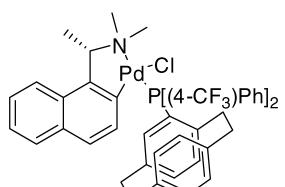


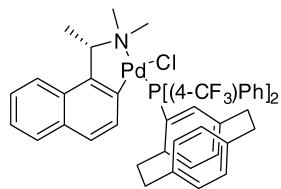
$C_{42}H_{41}ClNPPd$
Chloro[(*S*)-dimethyl(1-(1-naphthyl)ethyl)aminato-*C,N*][(*R_p*)-diphenyl([2.2]paracyclophan-4-yl)phosphine]palladium(II)

$[\alpha]_D^{20} = -34.0$ (c 1.10, $CHCl_3$)

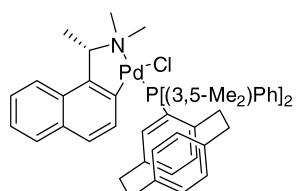
Source of chirality: (*S*)-1-(naphthalen-1-yl)ethanamine

Absolute configuration: (*R_p,S*)

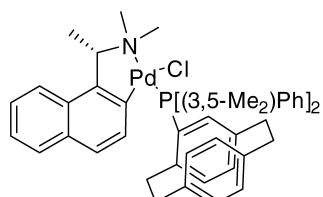
 $C_{42}H_{41}ClNPPd$ Chloro[(*S*)-dimethyl(1-(1-naphthyl)ethyl)aminato-*C,N*][(*S_p*)-diphenyl([2.2]paracyclophan-4-yl)phosphine]palladium(II) $[\alpha]_D^{20} = -163.9$ (*c* 0.6, CHCl₃)Source of chirality: (*S*)-1-(naphthalen-1-yl)ethanamineAbsolute configuration: (*S_p,S*) $C_{44}H_{45}ClNO_2PPd$ Chloro[(*S*)-dimethyl(1-(1-naphthyl)ethyl)aminato-*C,N*][(*R_p*)-di(4'-methoxy)[2.2]paracyclophan-4-yl)phosphine]palladium(II) $[\alpha]_D^{20} = -30.2$ (*c* 0.78, CHCl₃)Source of chirality: (*S*)-1-(naphthalen-1-yl)ethanamineAbsolute configuration: (*R_p,S*) $C_{44}H_{45}ClNO_2PPd$ Chloro[(*S*)-dimethyl(1-(1-naphthyl)ethyl)aminato-*C,N*][(*S_p*)-di(4'-methoxy)[2.2]paracyclophan-4-yl)phosphine]palladium(II) $[\alpha]_D^{20} = -238$ (*c* 0.97, CHCl₃)Source of chirality: (*S*)-1-(naphthalen-1-yl)ethanamineAbsolute configuration: (*S_p,S*) $C_{44}H_{39}ClF_6NPPd$ Chloro[(*S*)-dimethyl(1-(1-naphthyl)ethyl)aminato-*C,N*][(*R_p*)-di(4'-trifluoromethyl)phenyl-[2.2]paracyclophan-4-yl)phosphine]palladium(II) $[\alpha]_D^{20} = -5.1$ (*c* 1.0, CHCl₃)Source of chirality: (*S*)-1-(naphthalen-1-yl)ethanamineAbsolute configuration: (*R_p,S*)


 $[\alpha]_D^{20} = -141.5$ (*c* 1.14, CHCl₃)
Source of chirality: (*S*)-1-(naphthalen-1-yl)ethanamineAbsolute configuration: (*S_p,S*)

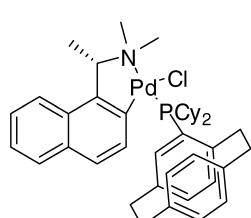
Chloro[(*S*)-dimethyl(1-(1-naphthyl)ethyl)aminato-*C,N*][(*S_p*)-di(4'-trifluoromethyl)phenyl-([2.2]paracyclophan-4-yl)phosphine]palladium(II)


 $[\alpha]_D^{20} = -30.1$ (*c* 0.56, CHCl₃)
Source of chirality: (*S*)-1-(naphthalen-1-yl)ethanamineAbsolute configuration: (*R_p,S*)

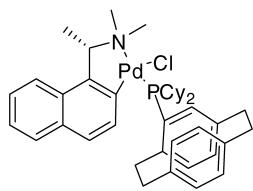
Chloro[(*S*)-dimethyl(1-(1-naphthyl)ethyl)aminato-*C,N*][(*R_p*)-di(3',5'-dimethylphenyl)-[2.2]paracyclophan-4-yl]phosphine]palladium(II)



Chloro[(*S*)-dimethyl(1-(1-naphthyl)ethyl)aminato-*C,N*][(*S_p*)-di(3',5'-dimethylphenyl)-[2.2]paracyclophan-4-yl]phosphine]palladium(II)


 $[\alpha]_D^{20} = +18.9$ (*c* 0.80, CHCl₃)
Source of chirality: (*S*)-1-(naphthalen-1-yl)ethanamineAbsolute configuration: (*R_p,S*)

Chloro[(*S*)-dimethyl(1-(1-naphthyl)ethyl)aminato-*C,N*][(*R_p*)-dicyclohexyl-[2.2]paracyclophan-4-yl]phosphine]palladium(II)

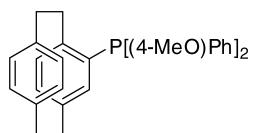


Chloro[(S)-dimethyl(1-(1-naphthyl)ethyl)aminato-*C,N*][(S_p)-dicyclohexyl([2.2]paracyclophan-4-yl)phosphine]palladium(II)

[α]_D²⁰ = -22.5 (c 0.82, CHCl₃)

Source of chirality: (S)-1-(naphthalen-1-yl)ethanamine

Absolute configuration: (S_p,S)

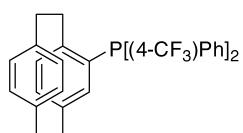


(S_p)-Di(4'-methoxyphenyl)([2.2]paracyclophan-4-yl)phosphine

[α]_D²⁰ = -37.6 (c 0.18, CHCl₃)

Source of chirality: (S)-1-(naphthalen-1-yl)ethanamine

Absolute configuration: (S_p)

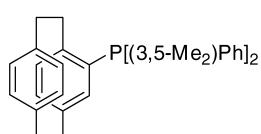


(S_p)-Di(4'-trifluoromethylphenyl)([2.2]paracyclophan-4-yl)phosphine

[α]_D²⁰ = -11.2 (c 0.27, CHCl₃)

Source of chirality: (S)-1-(naphthalen-1-yl)ethanamine

Absolute configuration: (S_p)

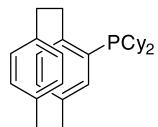


(S_p)-Di(3',5'-dimethylphenyl)([2.2]paracyclophan-4-yl)phosphine

[α]_D²⁰ = -12.6 (c 0.40, CHCl₃)

Source of chirality: (S)-1-(naphthalen-1-yl)ethanamine

Absolute configuration: (S_p)

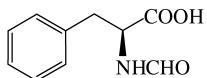


C₂₈H₃₇P
(S_p)-Dicyclohexyl([2.2]paracyclophan-4-yl)phosphine

[α]_D²⁰ = -44.6 (c 0.20, CHCl₃)

Source of chirality: (S)-1-(naphthalen-1-yl)ethanamine

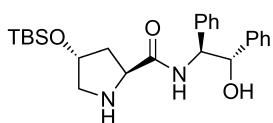
Absolute configuration: (S_p)



C₁₀H₁₁NO₃
(S)-(+)-(+)-Formylphenylalanine

Optical purity = 92%

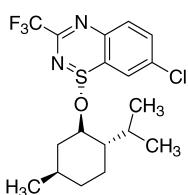
[α]_D²⁰ = 69.1 (c 2, ethanol)



C₂₅H₃₇N₂O₃Si
(2S,1'S,2'S)-Pyrrolidine-4-trans-TBS-protected hydroxy-2-carboxylic acid (2-hydroxy-1,2-diphenyl-ethyl)-amide

[α]_D²⁰ = -17.2 (c 0.5, CH₂Cl₂)

Source of chirality: asymmetric synthesis



C₁₈H₂₂ClF₃N₂OS
(S)-(-)-7-Chloro-1-[(1R,2S,5R)-(-)-2-isopropyl-5-methyl-cyclohexyloxy]-3-trifluoromethyl-1λ⁴-benzo[1,2,4]thiadiazine

De = 100%

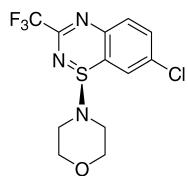
[α]_D²⁰ = -857.5 (c 0.9, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (S_S)(1R,2S,5R)_{menthol}

Nadiia V. Briukhovetska, Nataliya P. Kolesnyk, Alexander M. Chernega,
Sergiy A. Buty and Yuriy G. Shermolovich*

Tetrahedron: Asymmetry 18 (2007) 271



Ee = 100%

$[\alpha]_D^{20} = +1224$ (*c* 0.4, CHCl₃)

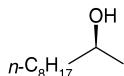
Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

C₁₂H₁₁ClF₃N₃OS
(*S*)-(+)-7-Chloro-1-morpholin-4-yl-3-trifluoromethyl-1λ⁴-benzo[1,2,4]thiadiazine

Constance V. Voss, Christian C. Gruber and Wolfgang Kroutil*

Tetrahedron: Asymmetry 18 (2007) 276



Ee = 92%

$[\alpha]_D^{20} = +9.8$ (*c* 1.00, EtOH)

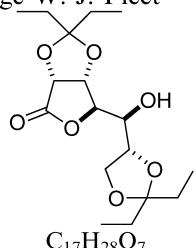
Source of chirality: deracemisation, asymmetric synthesis

Absolute configuration: (*S*)

C₁₀H₂₂O
(*S*)-2-Decanol

Anders E. Håkansson, Jeroen van Ameijde, Luisa Guglielmini,
Graeme Horne, Robert J. Nash, Emma L. Evinson, Atsushi Kato and
George W. J. Fleet*

Tetrahedron: Asymmetry 18 (2007) 282



Ee = 100%

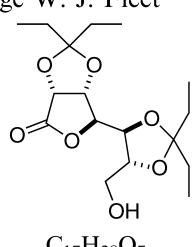
$[\alpha]_D^{21} = -28.4$ (*c* 1.93, CHCl₃)

Source of chirality: D-glycero-D-gulono-1,4-lactone as starting material

2,3:6,7-Di-O-diethylidene-D-glycero-L-talo-heptono-1,4-lactone

Anders E. Håkansson, Jeroen van Ameijde, Luisa Guglielmini,
Graeme Horne, Robert J. Nash, Emma L. Evinson, Atsushi Kato and
George W. J. Fleet*

Tetrahedron: Asymmetry 18 (2007) 282



Ee = 100%

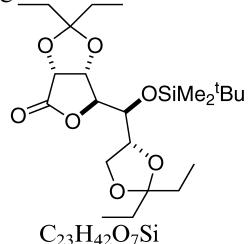
$[\alpha]_D^{22} = -62.6$ (*c* 1.60, CHCl₃)

Source of chirality: D-glycero-D-gulono-1,4-lactone as starting material

2,3:5,6-Di-O-diethylidene-D-glycero-L-talo-heptono-1,4-lactone

Anders E. Håkansson, Jeroen van Ameijde, Luisa Guglielmini,
Graeme Horne, Robert J. Nash, Emma L. Evinson, Atsushi Kato and
George W. J. Fleet*

Tetrahedron: Asymmetry 18 (2007) 282



Ee = 100%

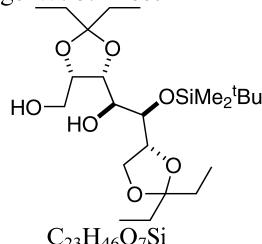
$[\alpha]_D^{21} = -14.6$ (*c* 2.5, CHCl₃)

Source of chirality: D-glycero-D-gulono-1,4-lactone as starting material

5-O-tert-Butyldimethylsilyl-2,3:6,7-di-O-diethylidene-D-glycero-L-talo-heptono-1,4-lactone

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Ee = 100%

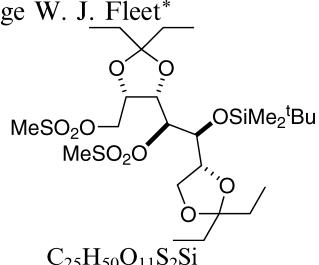
$[\alpha]_D^{21} = +24.1$ (*c* 3.1, CHCl₃)

Source of chirality: D-glycero-D-gulono-1,4-lactone as starting material

5-O-tert-Butyldimethylsilyl-2,3:6,7-di-O-diethylidene-D-glycero-L-talo-heptitol

Anders E. Håkansson, Jeroen van Ameijde, Luisa Guglielmini,
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Ee = 100%

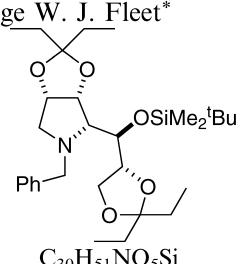
$[\alpha]_D^{20} = -44.2$ (*c* 0.85, CHCl₃)

Source of chirality: D-glycero-D-gulono-1,4-lactone as starting material

5-O-tert-Butyldimethylsilyl-2,3:6,7-di-O-diethylidene-1,4-di-O-methanesulfonyl-D-glycero-L-talo-heptitol

Anders E. Håkansson, Jeroen van Ameijde, Luisa Guglielmini,
Graeme Horne, Robert J. Nash, Emma L. Evinson, Atsushi Kato and
George W. J. Fleet*

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Ee = 100%

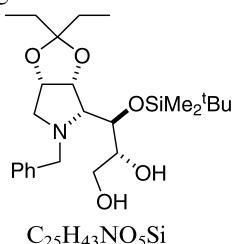
$[\alpha]_D^{20} = +20.4$ (*c* 0.85, CHCl₃)

Source of chirality: D-glycero-D-gulono-1,4-lactone as starting material

N-Benzyl 5-O-tert-butyldimethylsilyl-1,4-dideoxy-2,3:6,7-di-O-diethylidene-1,4-imino-D-glycero-L-talo-heptitol

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Graeme Horne, Robert J. Nash, Emma L. Evinson, Atsushi Kato and
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Ee = 100%

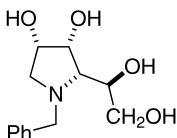
$[\alpha]_D^{23} = +35.1$ (*c* 1.05, CHCl₃)

Source of chirality: D-glycero-D-gulono-1,4-lactone as starting material

N-Benzyl 5-O-tert-butyldimethylsilyl-1,4-dideoxy-2,3-O-diethylidene-1,4-imino-D-glycero-L-talo-heptitol

Anders E. Håkansson, Jeroen van Ameijde, Luisa Guglielmini,
Graeme Horne, Robert J. Nash, Emma L. Evinson, Atsushi Kato and
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Ee = 100%

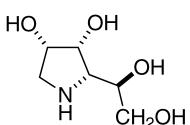
$[\alpha]_D^{21} = +37.7$ (*c* 1.20, H₂O)

Source of chirality: D-glycero-D-gulono-1,4-lactone as starting material

C₁₃H₁₉NO₄
N-Benzyl 1,4-dideoxy-1,4-imino-L-mannitol

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Ee = 100%

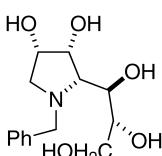
$[\alpha]_D^{21} = +10.3$ (*c* 1.20, H₂O)

Source of chirality: D-glycero-D-gulono-1,4-lactone as starting material

C₆H₁₃NO₄
L-DIM (1,4-dideoxy-1,4-imino-L-mannitol)

Anders E. Håkansson, Jeroen van Ameijde, Luisa Guglielmini,
Graeme Horne, Robert J. Nash, Emma L. Evinson, Atsushi Kato and
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Ee = 100%

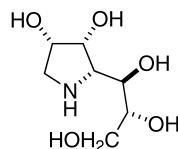
$[\alpha]_D^{21} = +12.7$ (*c* 2.04, MeOH)

Source of chirality: D-glycero-D-gulono-1,4-lactone as starting material

C₁₄H₂₁NO₅
N-Benzyl 1,4-imino-D-glycero-L-talo-heptitol

Anders E. Håkansson, Jeroen van Ameijde, Luisa Guglielmini,
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Ee = 100%

$[\alpha]_D^{23} = +9.5$ (*c* 1.70, H₂O)

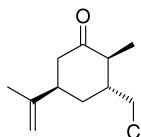
Source of chirality: D-glycero-D-gulono-1,4-lactone as starting material

C₇H₁₅NO₅

1,4-Imino-D-glycero-L-talo-heptitol

Oleksandr O. Grygorenko, Nataliya A. Kopylova, Pavel K. Mikhailiuk,
Anja Meißner and Igor V. Komarov*

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Ee = 100%

$[\alpha]_D = -18.8$ (*c* 0.41, MeOH)

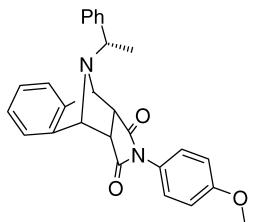
Source of chirality: (R)-carvone

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

(2S,3R,5R)-3-(Chloromethyl)-5-isopropenyl-2-methylcyclohexanone

Oleksandr O. Grygorenko, Nataliya A. Kopylova, Pavel K. Mikhailiuk,
Anja Meißner and Igor V. Komarov*

Tetrahedron: Asymmetry 18 (2007) 290



Ee = 100%

$[\alpha]_D = +88.5$ (*c* 0.87, MeOH)

Source of chirality: (R)- α -phenylethylamine

Absolute configuration: (3aR,4S,9R,9aS,1'R)

(3aR,4S,9R,9aS)-2-(4-Methoxyphenyl)-10-[(1R)-1-phenylethyl]-3a,4,9,9a-tetrahydro-1H-4,9-epiminobenzo[f]isoindole-1,3-dione