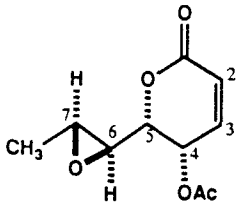
S. Ramesh and R.W. Franck*

Tetrahedron: Asymmetry **1990,** *1*, 137

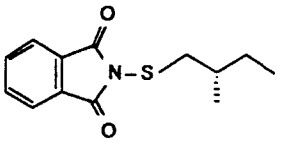


$C_{10}H_{12}O_5$
(+)-asperlin

Homochiral
$[\alpha]_D^{25} = +322°$ (c 0.2, 95% EtOH)
Source of chirality: synthesis from L-rhamnose
Absolute configuration 4S,5S,6S,7R

G. Cevasco, E. Narisano and S. Thea

Tetrahedron: Asymmetry **1990,** *1*, 141

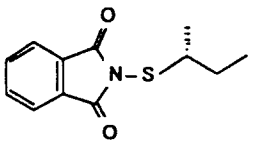


$C_{13}H_{15}NO_2S$
N-(2-methyl-1-butylthio)phthalimide

Homochiral by nmr with tris[3-(heptafluoropropyl-hydroxymethylene)-d-camphorato]europium(III)
$[\alpha]_D^{20} = +23.3°$ (*c* 0.99, $CHCl_3$)
Source of chirality: (*S*)-(-)-2-methyl-1-butanol
Absolute configuration: *S*

G. Cevasco, E. Narisano and S. Thea

Tetrahedron: Asymmetry **1990,** *1*, 141

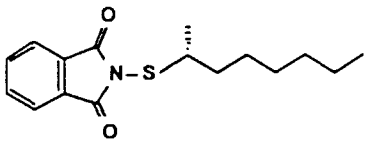


$C_{12}H_{13}NO_2S$
N-(2-butylthio)phthalimide

Homochiral by nmr with tris[3-(heptafluoropropyl-hydroxymethylene)-d-camphorato]europium(III)
$[\alpha]_D^{20} = -6.0°$ (*c* 1.01, $CHCl_3$)
Source of chirality: (*S*)-(+)-2-butanol
Absolute configuration: *R*

G. Cevasco, E. Narisano and S. Thea

Tetrahedron: Asymmetry **1990,** *1*, 141

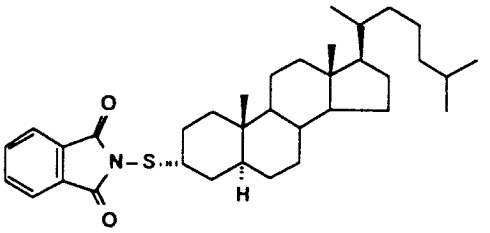


$C_{16}H_{21}NO_2S$
N-(2-octylthio)phthalimide

Homochiral by nmr with tris[3-(heptafluoropropyl-hydroxymethylene)-d-camphorato]europium(III)
$[\alpha]_D^{20} = -2.5°$ (*c* 0.98, $CHCl_3$)
Source of chirality: (*S*)-(+)-2-octanol
Absolute configuration: *R*

G. Cevasco, E. Narisano and S. Thea

Tetrahedron: Asymmetry **1990**, *1*, 141



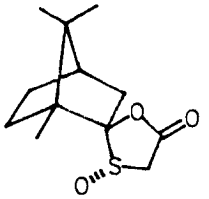
N-(cholestan-3-thio)phthalimide

$[\alpha]_D^{20} = +15.2°$ (*c* 0.99, $CHCl_3$)
Source of chirality: (+)-3β-cholestanol
Absolute configuration: 3*R*

$C_{35}H_{51}NO_2S$

S.-Y. Po, H.-H. Liu and B.-J. Uang

Tetrahedron: Asymmetry **1990**, *1*, 143

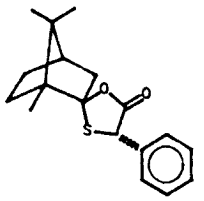


chiral molecule derived from camphor
$[\alpha]_D^{27}$+27°(c 2.55,$CHCl_3$)
source of chirality:(+)-(1R)-camphor
absolute configuration:1R,2S,3'S

S-oxide-2-(1,7,7-trimethylbicyclo[2.2.1]heptane)-spiro-2'-(1',3'-oxathiolan-5'-one)

S.-Y. Po, H.-H. Liu and B.-J. Uang

Tetrahedron: Asymmetry **1990**, *1*, 143

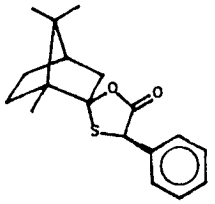


chiral molecule derived from camphor
$[\alpha]_D^{23}$-11.45°(C 2,$CHCl_3$)
source of chirality:(+)-(1R)-camphor
absolute configuration:1R,2S,4'S

2-(1,7,7-trimethylbicyclo[2.2.1]heptane)-spiro-2'-(4'-phenyl-1',3'-oxathiolan-5'-one)

S.-Y. Po, H.-H. Liu and B.-J. Uang

Tetrahedron: Asymmetry **1990**, *1*, 143

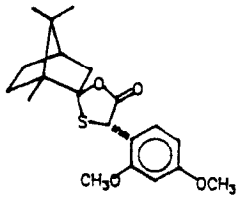


chiral molecule derived from camphor
$[\alpha]_D^{28}$-14.6°(c 2,$CHCl_3$)
source of chirality:(+)-(1R)-camphor
absolute configuration:1R,2S,4'R

2-(1,7,7-trimethylbicyclo[2.2.1]heptane)-spiro-2'-(4'-phenyl-1',3'-oxathiolan-5'-one)

S.-Y. Po, H.-H. Liu and B.-J. Uang

Tetrahedron: Asymmetry **1990,** *1*, 143

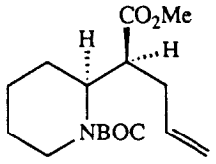


chiral molecule derived from camphor
$[\alpha]_D^{28}$ -17.29°(c 2.07,$CHCl_3$)
source of chirality:(+)-(1R)-camphor
absolute configuration:1R,2S,4'S

2-(1,7,7-trimethylbicyclo[2.2.1]heptane)-spiro-2'-(4'-(2",4"-dimethoxyphenyl)-1',3'-oxathiolan-5'-one)

C. Morley, D.W. Knight and A.C. Share

Tetrahedron: Asymmetry **1990,** *1*, 147



$C_{16}H_{27}NO_4$

E.e. = 68% at α centre (98% S at 2-position) (by ^1H nmr)
$[\alpha]_D^{17}$ -7.5° (c 2.84, $CHCl_3$)

Source of chirality: Optical resolution and diastereoselective alkylation

Absolute configuration 2S,αR (comp. with lit. data)

Methyl 1-^{t}Butyloxycarbonyl-α-(2'-propen-1'-yl)-2-piperidineacetate

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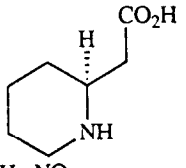
C. Morley, D.W. Knight and A.C. Share

Tetrahedron: Asymmetry **1990,** *1*, 147



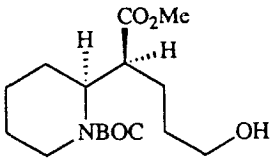
$C_7H_{13}NO_2$

2-Piperidineacetic acid

E.e. >98% (Comp. with lit.)
$[\alpha]_D^{17}$ +33.5° (c 0.6, H_2O); m.p. 234-235°C.
Source of chirality: Optical resolution
Absolute configuration 2S
[*cf.* lit. data (T. Wakabayashi et.al., *Synth Commun..*, 1977,7, 239) m.p. 218-221°C,$[\alpha]_D^{17}$ +22.1° (c 0.6, H_2O) for material of 64% optical purity].

C. Morley, D.W. Knight and A.C. Share

Tetrahedron: Asymmetry **1990,** *1*, 147



$C_{16}H_{29}NO_5$

E.e. = 68% at α centre (98% S at 2-position) (by ^1H nmr)
$[\alpha]_D^{17}$ -3.2° (c 2.34, $CHCl_3$)

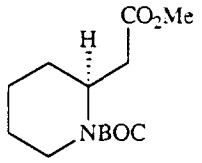
Source of chirality: Optical resolution and diastereoselective alkylation

Absolute configuration 2S,αR (comp. with lit. data)

Methyl 1-^{t}Butyloxycarbonyl-α-(3'-hydroxypropyl)-2-piperidineacetate

C. Morley, D.W. Knight and A.C. Share

Tetrahedron: Asymmetry **1990,** *1*, 147



$C_{13}H_{23}NO_4$

Methyl 1-^{t}Butyloxycarbonyl-2-piperidineacetate

E.e. = >98% (comp. with lit data)

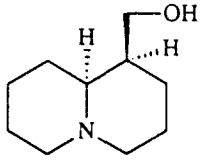
$[\alpha]_D^{17}$ -8.3° (c 4.54, $CHCl_3$)

Source of chirality: Optical resolution

Absolute configuration 2*S* (comp. with lit. data)

C. Morley, D.W. Knight and A.C. Share

Tetrahedron: Asymmetry **1990,** *1*, 147



$C_{10}H_{19}NO$

Octahydro-2H-quinolizine-1-methanol [(+)-Lupinine]

E.e. = >86%

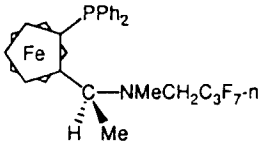
$[\alpha]_D^{17}$ +19.5° (c 1%, EtOH) [lit.$[\alpha]_D$ -21° (c 1%, EtOH) for (-)-lupinine]

Source of chirality: Optical resolution and diastereoselective alkylation

Absolute configuration 1*S*,8*S* (comp. with lit. data)

T. Hayashi, Y. Matsumoto, I. Morikawa, and Y. Ito

Tetrahedron: Asymmetry **1990,** *1*, 151



$C_{29}H_{27}NF_7PFe$

(S)-N-methyl-N-(perfluoro-n-propyl)methyl-1-[(R)-2-(diphenylphosphino)ferrocenyl]ethylamine

E.e. = 100% [derived from a compound of 100% ee]

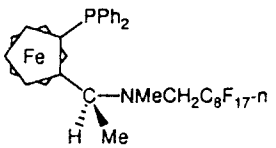
$[\alpha]_D^{20}$ +249° (c 0.6, $CHCl_3$)

Source of chirality: optically resolved (S)-N,N-dimethyl-1-ferrocenylethylamine

Absolute configuration S_C,R_{Fc}

T. Hayashi, Y. Matsumoto, I. Morikawa, and Y. Ito

Tetrahedron: Asymmetry **1990,** *1*, 151



$C_{34}H_{27}NF_{17}PFe$

(S)-N-methyl-N-(perfluoro-n-octyl)methyl-1-[(R)-2-(diphenylphosphino)ferrocenyl]ethylamine

E.e. = 100% [derived from a compound of 100% ee]

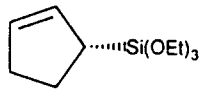
$[\alpha]_D^{20}$ +221° (c 0.5, $CHCl_3$)

Source of chirality: optically resolved (S)-N,N-dimethyl-1-ferrocenylethylamine

Absolute configuration S_C,R_{Fc}

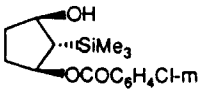
T. Hayashi, Y. Matsumoto, I. Morikawa, and Y. Ito

Tetrahedron: Asymmetry **1990,** *1*, 151



$C_{11}H_{22}O_3Si$

3-(triethoxysilyl)cyclopentene

E.e. = 57% [by converting into 

and HPLC with chiral stationary phase column, Sumipax OA-2000]

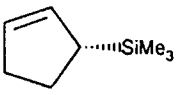
$[\alpha]_D^{20}$ +43° (c 1.0, benzene)

Source of chirality: catalytic asymmetric hydrosilylation of cyclopentadiene

Absolute configuration: R (oxidized into (R)-3-hydroxycyclopentene)

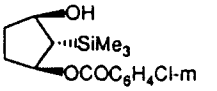
T. Hayashi, Y. Matsumoto, I. Morikawa, and Y. Ito

Tetrahedron: Asymmetry **1990,** *1*, 151



$C_8H_{16}Si$

3-(trimethylsilyl)cyclopentene

E.e. = 57% [by converting into 

and HPLC with chiral stationary phase column, Sumipax OA-2000]

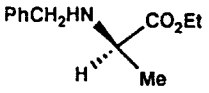
$[\alpha]_D^{20}$ +112° (c 1.1, benzene)

Source of chirality: catalytic asymmetric hydrosilylation of cyclopentadiene

Absolute configuration: R (related to (R)-3-hydroxycyclopentene)

F. D'Angeli, P. Marchetti, G. Cavicchioni, G. Catelani, and F. Moftakhari Kamrani Nejad

Tetrahedron: Asymmetry **1990,** *1*, 155



$C_{12}H_{16}NO_2$

Ethyl 2-(benzylamino)propanoate

E.e 86% [by nmr with Eu $(tfc)_3$]

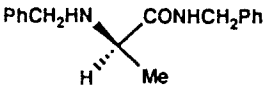
$[\alpha]_D^{20} = +36^\circ$ (c 1, $CHCl_3$).

Source of chirality: S-alanine.

Absolute configuration R.

F. D'Angeli, P. Marchetti, G. Cavicchioni, G. Catelani, and F. Moftakhari Kamrani Nejad

Tetrahedron: Asymmetry **1990,** *1*, 155



$C_{17}H_{20}N_2O$

N,N'-Dibenzylalaninamide

E.e 98% [by nmr with Eu $(tfc)_3$]

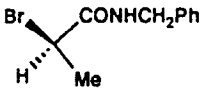
$[\alpha]_D^{20} = +4.2^\circ$ (c 1, $CHCl_3$).

Source of chirality: S-alanine.

Absolute configuration R.

F. D'Angeli, P. Marchetti, G. Cavicchioni, G. Catelani, and F. Moftakhari Kamrani Nejad

Tetrahedron: Asymmetry **1990,** *1*, 155

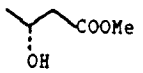


$C_{10}H_{12}BrNO$
N-Benzyl-2-bromopropanamide

E.e 98% [by nmr with Eu $(tfc)_3$]
$[\alpha]_D^{20} = +1.2°$ (c 1, $CHCl_3$).
Source of chirality: R-alanine.
Absolute configuration R.

H. Brunner, M. Muschiol, J. Wiehl, T. Wischert

Tetrahedron: Asymmetry **1990,** *1*, 159

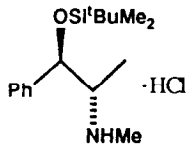


$C_5H_{10}O_3$
methyl 3-hydroxybutanoate

E.e = 76.9 % [by polarimetry with ref. to $[\alpha]_D^{24}$ = 23.50 (pur.), D. Seebach, M. Züger, Helv. Chim. Acta (1982) 495]
Source of chirality: (R,R)-(+)-tartaric acid on modified Ni surface, enantioselective catalytic hydrogenation
Absolute configuration: R

J. Brussee, R.A.T.M. van Benthem, C.G. Kruse and A. van der Gen.

Tetrahedron: Asymmetry **1990,** *1*, 163

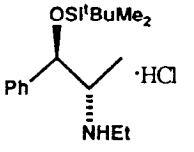


$C_{16}H_{30}NOClSi$
(1R,2S)-(-)-2-(Methylamino)-1-phenyl-1-[(t-butyldimethylsilyl)oxy]-propane, HCl salt.

E.e. = >99% [by 'H nmr in presence of R-(+)-α-methoxy-α-(trifluoromethyl)phenylacetic acid].
$[\alpha]_D^{20} = -31.1°$ (c 1, $CHCl_3$)
Source of chirality (R)-(+)-1-[(t-butyldimethylsilyl)oxy]-1-phenyl-2-propane.
Absolute configuration 1R,2S [assigned by conversion to (1R,2S)-(-)-ephedrine]

J. Brussee, R.A.T.M. van Benthem, C.G. Kruse and A. van der Gen.

Tetrahedron: Asymmetry **1990,** *1*, 163

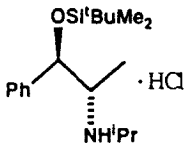


$C_{17}H_{32}NOClSi$
(1R,2S)-(-)-2-(Ethylamino)-1-phenyl-1-[(t-butyldimethylsilyl)oxy]-propane, HCl salt.

E.e. = >99% [by 'H nmr in presence of R-(+)-α-methoxy-α-(trifluoromethyl)phenylacetic acid].
$[\alpha]_D^{20} = -33.0°$ (c 1, $CHCl_3$)
Source of chirality (R)-(+)-1-[(t-butyldimethylsilyl)oxy]-1-phenyl-2-propane.
Absolute configuration 1R,2S.

J. Brussee, R.A.T.M. van Benthem, C.G. Kruse and A. van der Gen.

Tetrahedron: Asymmetry **1990,** *1*, 163



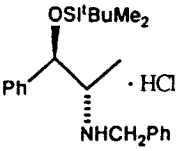
$C_{18}H_{34}NOClSi$

(1R,2S)-(-)-2-(iso-Propylamino)-1-phenyl-1-[(t-butyldimethylsilyl)oxy]-propane, HCl salt.

E.e. = >99% [by ^{1}H nmr in presence of R-(+)-α-methoxy-α-(trifluoromethyl)phenylacetic acid].
$[\alpha]_D^{20} = -0.1°$ (c 1, $CHCl_3$)
Source of chirality (R)-(+)-1-[(t-butyldimethylsilyl)oxy]-1-phenyl-2-propane.
Absolute configuration 1R,2S.

J. Brussee, R.A.T.M. van Benthem, C.G. Kruse and A. van der Gen.

Tetrahedron: Asymmetry **1990,** *1*, 163



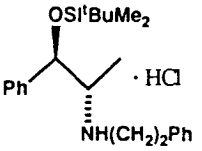
$C_{22}H_{34}NOClSi$

(1R,2S)-(-)-2-(Benzylamino)-1-phenyl-1-[(t-butyldimethylsilyl)oxy]-propane, HCl salt.

E.e. = >99% [by ^{1}H nmr in presence of R-(+)-α-methoxy-α-(trifluoromethyl)phenylacetic acid].
$[\alpha]_D^{20} = -24.6°$ (c 1, $CHCl_3$)
Source of chirality (R)-(+)-1-[(t-butyldimethylsilyl)oxy]-1-phenyl-2-propane.
Absolute configuration 1R,2S.

J. Brussee, R.A.T.M. van Benthem, C.G. Kruse and A. van der Gen.

Tetrahedron: Asymmetry **1990,** *1*, 163



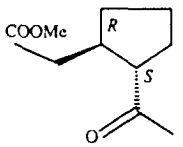
$C_{23}H_{36}NOClSi$

(1R,2S)-(-)-2-(2-Phenylethylamino)-1-phenyl-1-[(t-butyldimethylsilyl)oxy]-propane, HCl salt.

E.e. = >99% [by ^{1}H nmr in presence of R-(+)-α-methoxy-α-(trifluoromethyl)phenylacetic acid].
$[\alpha]_D^{20} = -5.3°$ (c 1, $CHCl_3$)
Source of chirality (R)-(+)-1-[(t-butyldimethylsilyl)oxy]-1-phenyl-2-propane.
Absolute configuration 1R,2S.

Françoise Dumas and Jean d'Angelo

Tetrahedron: Asymmetry **1990,** *1*, 167



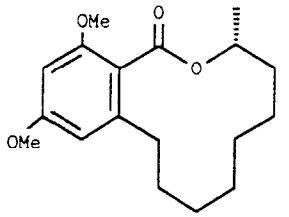
$C_{10}H_{16}O_3$

Methyl 2-acetylcyclopentylacetate

E.e = 61 % [by NMR with tris[3-heptafluoropropyl-hydroxymethylene)-(+)-camphorato], europium(III) derivative]
$[\alpha]^{20}_D = +16.6°$ (c = 3.8, MeOH)
Source of chirality : asymm. synth. (Michael)
Absolute configuration 1*R*, 2*S*
(assigned by chemical correlation)

G.Solladié, A.Rubio, M.C.Carreno, J.L.Garcia Ruano

Tetrahedron: Asymmetry **1990**, *1*, 187



$C_{18}H_{26}O_4$

Methyl lasiodiplodin

e.e = 100% (correlation to a natural product)

$[\alpha]_D$ = + 9°($CHCl_3$, c=1)

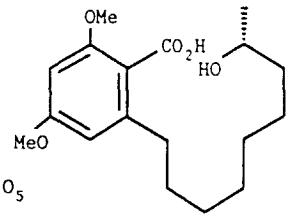
Source of chirality: synthesis from a β-hydroxy-sulfoxide

Absolute configuration: R

(assigned by correlation to a natural product)

G.Solladié, A.Rubio, M.C.Carreno, J.L.Garcia Ruano

Tetrahedron: Asymmetry **1990**, *1*, 187



$C_{18}H_{28}O_5$

2,4-dimethoxy-6-(8-hydroxynonyl) benzoic acid

e.e = 100% (correlation to a natural product)

$[\alpha]_D$ = - 3.7°($CHCl_3$, c=1)

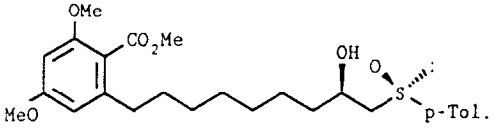
Source of chirality: synthesis from a β-hydroxy-sulfoxide

Absolute configuration: R

(assigned by correlation to a natural product)

G.Solladié, A.Rubio, M.C.Carreno, J.L.Garcia Ruano

Tetrahedron: Asymmetry **1990**, *1*, 187



$C_{26}H_{36}O_6S$

Methyl 2,4-dimethoxy-6-[8-hydroxy-9-(p-tolyl sulfinyl)nonyl] benzoate

e.e > 95% (NMR)

$[\alpha]_D$ = + 110.5° ($CHCl_3$, C=1)

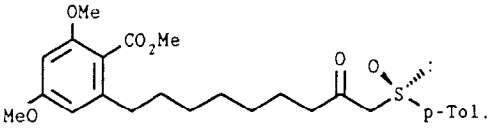
Source of chirality: asymmetric reduction of the β-ketosulfoxide

Absolute configuration: R_sR

(assigned by correlation to natural product)

G.Solladié, A.Rubio, M.C.Carreno, J.L.Garcia Ruano

Tetrahedron: Asymmetry **1990**, *1*, 187



$C_{26}H_{34}O_6S$

Methyl 3,5-dimethoxy-6-[8-oxo-9(p-tolylsulfinyl nonyl] benzoate

e.e = 100%

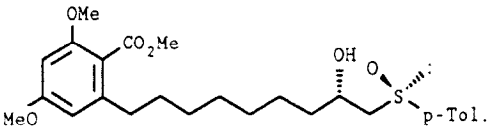
$[\alpha]_D$ = + 87.5° ($CHCl_3$, c=1)

Source of chirality: synthesis from optically pure (+) R methyl p-tolyl sulfoxide

Absolute configuration: R

G. Solladié, A. Rubio, M.C. Carreno, J.L. Garcia Ruano

Tetrahedron: Asymmetry **1990**, *1*, 187



e.e = 100% (NMR)

$[\alpha]_D$ + 120° ($CHCl_3$, c=1)

Source of chirality: asymmetric reduction of the β-ketosulfoxide

Absolute configuration: R_sS

(assigned by correlation to the enantiomer of a natural product)

$C_{26}H_{36}O_6S$

Methyl 2,4-dimethoxy-6-[8-hydroxy-9(p-tolyl-sulfinyl)nonyl] benzoate

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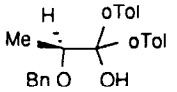
F. REBIERE, O. RIANT, H. B. KAGAN*

Tetrahedron: Asymmetry **1990**, *1*, 199



Source of chirality: (-)-(S)-Ethyl Lactate

$[\alpha]_D$ -60° (c=2 MeOH)

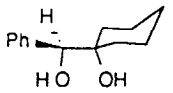
Absolute Configuration: 2S

$C_{24}H_{26}O_2$

1,1-di-o-Tolyl 1-hydroxy 2-benzyloxypropane

F. REBIERE, O. RIANT, H. B. KAGAN*

Tetrahedron: Asymmetry **1990**, *1*, 199



Source of chirality: (-)-(S)-Ethyl Mandelate

$[\alpha]_D$ 8.9° (c=2 MeOH)

Absolute Configuration: 1S

$C_{13}H_{18}O_2$

1-Phenyl 2,2-pentamethylene 1,2-dihydroxypropane

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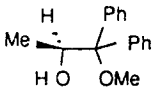
Tetrahedron: Asymmetry **1990**, *1*, 199



Source of chirality: (-)-(S)-Ethyl Lactate

$[\alpha]_D$ -7.8° (c=3.5 $CHCl_3$)

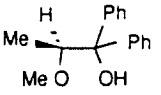
Absolute Configuration: 2S

$C_{16}H_{18}O_2$

1,1-di-phenyl 1-methoxy 2-hydroxypropane

F. REBIERE , O. RIANT , H. B. KAGAN*

Tetrahedron: Asymmetry **1990,** *1*, 199



$C_{16}H_{18}O_2$

Source of chirality: (-)-(S)-Ethyl Lactate

$[\alpha]_D$ -131° (c=1 $CHCl_3$)

Absolute Configuration: 2S

1,1-di-phenyl 1-hydroxy 2-methooxypropane

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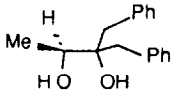
Tetrahedron: Asymmetry **1990,** *1*, 199



$C_{17}H_{20}O_2$

Source of chirality: (-)-(S)-Ethyl Lactate

$[\alpha]_D$ -1.16° (c=4 MeOH)

Absolute Configuration: 2S

1,1-di-benzyl 1,2-dihydroxypropane

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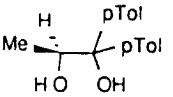
Tetrahedron: Asymmetry **1990,** *1*, 199



$C_{17}H_{20}O_2$

Source of chirality: (-)-(S)-Ethyl Lactate

$[\alpha]_D$ -85° (c=2 MeOH)

Absolute Configuration: 2S

1,1-di-pTolyl 1,2-dihydroxypropane

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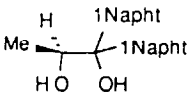
Tetrahedron: Asymmetry **1990,** *1*, 199



$C_{23}H_{20}O_2$

Source of chirality: (-)-(S)-Ethyl Lactate

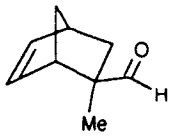
$[\alpha]_D$ -174° (c=1 MeOH)

Absolute Configuration: 2S

1,1-di-(1-naphtyl) 1,2-dihydroxypropane

F. REBIERE , O. RIANT , H. B. KAGAN*

Tetrahedron: Asymmetry **1990,** *1*, 199



$C_9H_{12}O$

Diels-Alder adduct from cyclopentadiene and methacrolein

$[\alpha]_D$ 23.3° (c=1 EtOH)

Absolute Configuration 1S, 2R, 4S

Bicyclo [2-2-1] hept 5-ene 2-carboxaldehyde 2-methyl