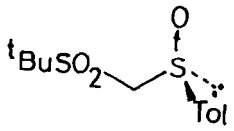
R. López and J.C. Carretero

Tetrahedron Asymmetry **1991**, *2*, 93



$C_{12}H_{18}O_3S$

$(S)_S$-tert-Butylsulfonyl-p-tolylsulfinylmethane

E.e. ⩾ 98% [by ^{1}H NMR with Yb(hfc)$_3$]

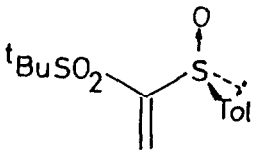
$[\alpha]_D^{20}$ = +142 (c=1, $CHCl_3$)

Source of chirality: synthesis from (-)-menthyl $(S)_S$-p-toluenesulfinate

Absolute configuration inferred from the method of synthesis (Andersen reaction)

R. López and J.C. Carretero

Tetrahedron Asymmetry **1991**, *2*, 93



$C_{13}H_{18}O_3S$

$(S)_S$-1-tert-Butylsulfonyl-1-p-tolylsulfinylethene

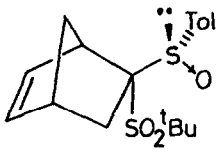
E.e. ⩾ 98% (by ^{1}H NMR of a precursor)

$[\alpha]_D^{20}$ = +25 (c=1, $CHCl_3$)

Absolute configuration S

R. López and J.C. Carretero

Tetrahedron Asymmetry **1991**, *2*, 93



$C_{18}H_{24}O_3S_2$

2-tert-Butylsulfonyl-2-p-tolylsulfinyl-5-norbornene

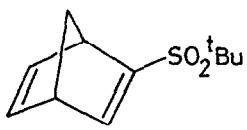
E.e. ⩾ 80% [by ^{1}H NMR with Yb(hfc)$_3$]

$[\alpha]_D$ = +64 (c=1, $CHCl_3$)

Absolute configuration R_1, R_2, R_4, S_S (assigned by correlation with (+)-(1R,4R)-dehydronorcamphor and by mechanistic considerations)

R. López and J.C. Carretero

Tetrahedron Asymmetry **1991**, *2*, 93



$C_{11}H_{16}O_2S$

(1R, 4S)-2-tert-Butylsulfonyl-2,5-norbornadiene

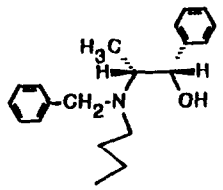
E.e. ⩾ 80% [by ^{1}H NMR with Yb(hfc)$_3$]

$[\alpha]_D^{20}$ = +98 (c=1, $CHCl_3$)

Absolute configuration 1R,4S (assigned by correlation of a precursor to (+)-(1R,4R)-dehydronorcamphor)

K. Soai and M. Watanabe

Tetrahedron Asymmetry **1991**, *2*, 97



E.e. = Not determined (probably 100%)

$[\alpha]^{24}_{D}$ -12 86 (c 5.0, $CHCl_3$)

Source of chirality: (1S, 2R)-norephedrine

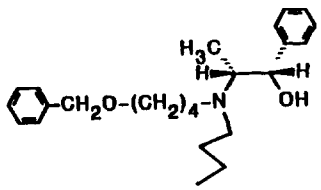
Absolute configuration 1S, 2R

$C_{20}H_{27}NO$

N-benzyl-N-butylnorephedrine

K. Soai and M Watanabe

Tetrahedron Asymmetry **1991**, *2*, 97



E.e. = Not determined (probably 100%)

$[\alpha]^{24}_{D}$ -7.71 (c 1.5, $CHCl_3$)

Source of chirality: (1S, 2R)-norephedrine

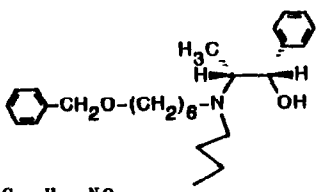
Absolute configuration 1S, 2R

$C_{24}H_{35}NO_2$

N-(4-benzyloxybutyl)-N-butylnorephedrine

K Soai and M Watanabe

Tetrahedron Asymmetry **1991**, *2*, 97



E.e = Not determined (probably 100%)

$[\alpha]^{20}_{D}$ -10.84 (c 2.0, $CHCl_3$)

Source of chirality: (1S, 2R)-norephedrine

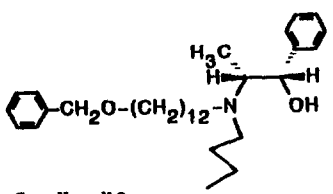
Absolute configuration 1S, 2R

$C_{26}H_{39}NO_2$

N-(6-benzyloxyhexyl)-N-butylnorephedrine

K. Soai and M. Watanabe

Tetrahedron. Asymmetry **1991**, *2*, 97



E.e. = Not determined (probably 100%)

$[\alpha]^{25}_{D}$ -7.42 (c 2.1, $CHCl_3$)

Source of chirality: (1S, 2R)-norephedrine

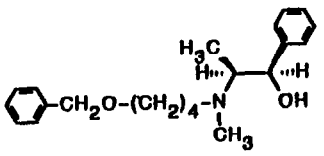
Absolute configuration 1S, 2R

$C_{32}H_{51}NO_2$

N-(12-benzyloxydodecyl)-N-butylnorephedrine

K. Soai and M. Watanabe

Tetrahedron. Asymmetry **1991**, *2*, 97



E.e. = Not determined (probably 100%)

$[\alpha]^{25}_{D}$ -1.01 (c 2.3, $CHCl_3$)

Source of chirality: (1R, 2S)-ephedrine

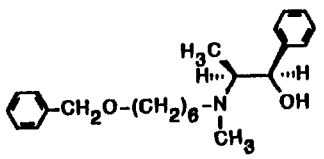
Absolute configuration 1R, 2S

$C_{21}H_{29}NO_2$

N-(4-benzyloxybutyl)ephedrine

K. Soai and M. Watanabe

Tetrahedron: Asymmetry **1991**, *2*, 97



E.e = Not determined (probably 100%)

$[\alpha]^{25}_{D}$ -2 72 (c 2.0, $CHCl_3$)

Source of chirality· (1R, 2S)-ephedrine

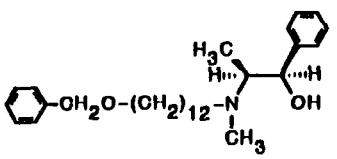
Absolute configuration 1R, 2S

$C_{23}H_{33}NO_2$

N-(4-benzyloxyhexyl)ephedrine

K. Soai and M. Watanabe

Tetrahedron. Asymmetry **1991**, *2*, 97



E.e. = Not determined (probably 100%)

$[\alpha]^{20}_{D}$ -2 90 (c 2.1, $CHCl_3$)

Source of chirality: (1R, 2S)-ephedrine

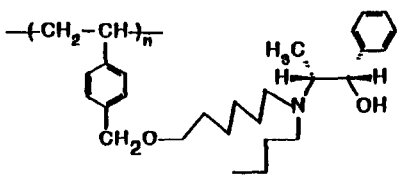
Absolute configuration 1R, 2S

$C_{29}H_{45}NO_2$

N-(12-benzyloxydodecyl)ephedrine

K. Soai and M. Watanabe

Tetrahedron Asymmetry **1991**, *2*, 97



E.e. = Not determined (probably 100%)

$[\alpha]_{D}$ not measured because of insolubility

Source of chirality: (1S, 2R)-norephedrine

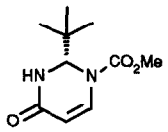
Absolute configuration 1S, 2R

polymeric compound

N-butyl-N-(6-polystyrylmethoxyhexyl)norephedrine

George R Negrete and Joseph P Konopelski

Tetrahedron Asymmetry **1991**, *2*, 105



ee = >99% (by GC and NMR of derivative)

$[\alpha]_D$ = +434 (c = 1 7, EtOAc)

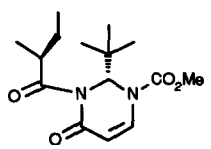
Source of chirality (*S*)-asparagine

absolute configuration *S*

$C_{10}H_{16}O_3N_2$ (*S*)-1*N*-Carbomethoxy-2-*tert*-butyl-2,3-dihydro-4(1*H*)-pyrimidinone

George R Negrete and Joseph P Konopelski

Tetrahedron Asymmetry **1991**, *2*, 105



de = 94%, 98% after chromatography (by GC and NMR)

$[\alpha]_D$ = +138 (c = 5 63, CH_2Cl_2)

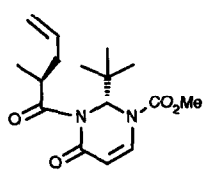
Source of chirality (*S*)-asparagine

absolute configuration 2*R*, *S* at 3*N* acyl group

$C_{15}H_{24}O_4N_2$ (2*R*)-1*N*-Carbomethoxy-3*N*-[(*S*)-2-methylbutyryl]-2-*tert*-butyl-2,3-dihydro-4(1*H*)-pyrimidinone

George R Negrete and Joseph P Konopelski

Tetrahedron Asymmetry **1991**, *2*, 105



de = 98%, 96% after chromatography (by GC and NMR)

$[\alpha]_D$ = +257 (c = 1 05, CH_2Cl_2)

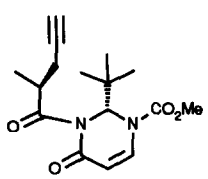
Source of chirality (*S*)-asparagine

absolute configuration 2*R*, *S* at 3*N* acyl group

$C_{16}H_{24}O_4N_2$ (2*R*)-1*N*-Carbomethoxy-3*N*-[(*S*)-2-methyl-4-pentenoyl]-2-*tert*-butyl-2,3-dihydro-4(1*H*)-pyrimidinone

George R Negrete and Joseph P Konopelski

Tetrahedron Asymmetry **1991**, *2*, 105



de = 98%; >99% after chromatography (by GC and NMR)

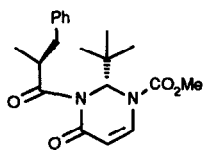
$[\alpha]_D$ = +152 (c = 1 55, CH_2Cl_2)

Source of chirality (*S*)-asparagine

absolute configuration 2*R*, *S* at 3*N* acyl group

$C_{16}H_{22}O_4N_2$ (2*R*)-1*N*-Carbomethoxy-3*N*-[(*S*)-2-methyl-4-pentynoyl]-2-*tert*-butyl-2,3-dihydro-4(1*H*)-pyrimidinone

George R Negrete and Joseph P Konopelski | *Tetrahedron Asymmetry* **1991**, *2*, 105



de = 98%, >99% after chromatography (by GC and NMR)

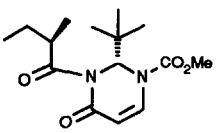
$[\alpha]_D$ = +210 (c = 1 81, CH_2Cl_2)

Source of chirality (*S*)-asparagine

absolute configuration 2*R*, *S* at 3*N* acyl group

$C_{20}H_{26}O_4N_2$ (2*R*)-1*N*-Carbomethoxy-3*N*-[(*S*)-2-methyl-3-phenylpropionyl]-2-*tert*-butyl-2,3-dihydro-4(1*H*)-pyrimidinone

George R Negrete and Joseph P Konopelski | *Tetrahedron Asymmetry* **1991**, *2*, 105



de = 86%, 98% after chromatography (by GC and NMR)

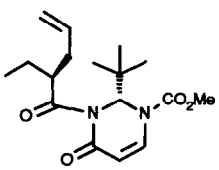
$[\alpha]_D$ = +86 4 (c = 2 36, CH_2Cl_2)

Source of chirality (*S*)-asparagine

absolute configuration 2*R*, *R* at 3*N* acyl group

$C_{15}H_{24}O_4N_2$ (2*R*)-1*N*-Carbomethoxy-3*N*-[(*R*)-2-methylbutyryl]-2-*tert*-butyl-2,3-dihydro-4(1*H*)-pyrimidinone

George R Negrete and Joseph P Konopelski | *Tetrahedron Asymmetry* **1991**, *2*, 105



de = 96%, 96% after chromatography (by GC and NMR)

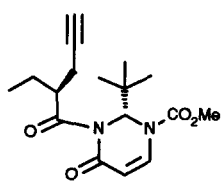
$[\alpha]_D$ = +81 9 (c = 0 89, CH_2Cl_2)

Source of chirality (*S*)-asparagine

absolute configuration 2*R*, *S* at 3*N* acyl group

$C_{17}H_{26}O_4N_2$ (2*R*)-1*N*-Carbomethoxy-3*N*-[(*S*)-2-ethyl-4-pentenoyl]-2-*tert*-butyl-2,3-dihydro-4(1*H*)-pyrimidinone

George R Negrete and Joseph P Konopelski | *Tetrahedron Asymmetry* **1991**, *2*, 105



de = 98%, >99% after chromatography (by GC and NMR)

$[\alpha]_D$ = +99 9 (c = 1 95, CH_2Cl_2)

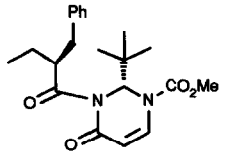
Source of chirality (*S*)-asparagine

absolute configuration 2*R*, *S* at 3*N* acyl group

$C_{17}H_{24}O_4N_2$ (2*R*)-1*N*-Carbomethoxy-3*N*-[(*S*)-2-ethyl-4-pentynoyl]-2-*tert*-butyl-2,3-dihydro-4(1*H*)-pyrimidinone

George R Negrete and Joseph P Konopelski

Tetrahedron Asymmetry **1991**, *2*, 105



de = 98%, >99% after chromatography (by GC and NMR)

$[\alpha]_D$ = +141 (c = 3 44, CH_2Cl_2)

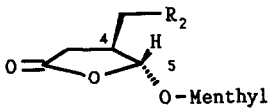
Source of chirality (*S*)-asparagine

absolute configuration 2*R*, *S* at 3*N* acyl group

$C_{21}H_{28}O_4N_2$ (2*R*)-1*N*-Carbomethoxy-3*N*-[(*S*)-2-benzybutyryl]-2-*tert*-butyl-2,3-dihydro-4(1*H*)-pyrimidinone

J F. G A. Jansen, C Jansen, B L Feringa

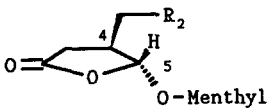
Tetrahedron Asymmetry **1991**, *2*, 109



R_2=CH_3
e e 100%, d e. 100% by NMR
source of chirality: synthesis from (-)-menthol
absolute configuration 4R, 5R
assigned by correlation with X-ray analysis and NMR NOE studies

J F G A. Jansen, C Jansen, B. L Feringa

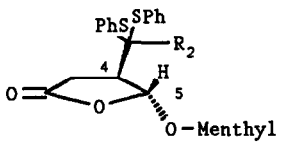
Tetrahedron Asymmetry **1991**, *2*, 109



R_2=Ph
e e 100%, d.e. 100% by NMR
source of chirality synthesis from (-)-menthol
absolute configuration 4R, 5R
assigned by correlation with X-ray analysis and NMR NOE studies

J F G A. Jansen, C. Jansen, B L Feringa

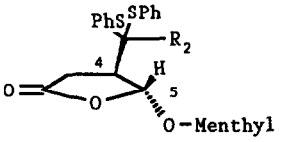
Tetrahedron Asymmetry **1991**, *2*, 109



R_2=CH_3
e.e 100%, d e 100% by NMR
source of chirality: synthesis from (-)-menthol
absolute configuration 4R, 5R
assigned by correlation with X-ray analysis and NMR NOE studies

J F G A. Jansen, C. Jansen, B. L Feringa

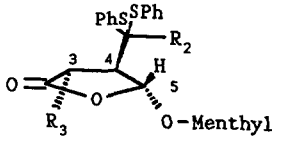
Tetrahedron Asymmetry **1991,** *2*, 109



R_2=Ph
e e 100%, d e. 100% by NMR
source of chirality· synthesis from (-)-menthol
absolute configuration 4R, 5R
assigned by correlation with X-ray analysis
and NMR NOE studies

J F G A Jansen, C. Jansen, B L Feringa

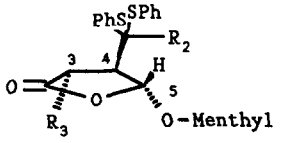
Tetrahedron Asymmetry **1991,** *2*, 109



R_2=CH_3, R_3=CH_3
e e 100%, d e 100% by NMR
source of chirality· synthesis from (-)-menthol
absolute configuration 4R, 5R
assigned by correlation with X-ray analysis
and NMR NOE studies

J F. G A. Jansen, C. Jansen, B L Feringa

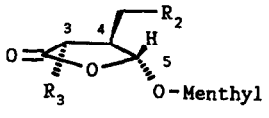
Tetrahedron Asymmetry **1991,** *2*, 109



R_2=Ph, R_3=CH_3
e.e 100%, d.e 100% by NMR
source of chirality: synthesis from (-)-menthol
absolute configuration 4R, 5R
assigned by correlation with X-ray analysis
and NMR NOE studies

J F G A Jansen, C. Jansen, B L Feringa

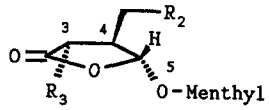
Tetrahedron Asymmetry **1991,** *2*, 109



R_2=CH_3, R_3=CH_3
e.e 100%, d.e. 100% by NMR
source of chirality: synthesis from (-)-menthol
absolute configuration 4R, 5R
assigned by correlation with X-ray analysis
and NMR NOE studies

J F. G. A. Jansen, C. Jansen, B L. Feringa

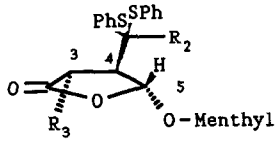
Tetrahedron Asymmetry **1991**, *2*, 109



R_2=Ph, R_3=CH_3
e.e 100%, d e. 100% by NMR
source of chirality· synthesis from (-)-menthol
absolute configuration 4R, 5R
assigned by correlation with X-ray analysis
and NMR NOE studies

J F. G A Jansen, C Jansen, B L Feringa

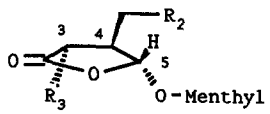
Tetrahedron Asymmetry **1991**, *2*, 109



R_2=R_3=$(CH_3O)_2C_6H_3$
e.e 100%, d.e 100% by NMR
source of chirality. synthesis from (-)-menthol
absolute configuration 4R, 5R
assigned by correlation with X-ray analysis
and NMR NOE studies

J F G. A. Jansen, C Jansen, B L Feringa

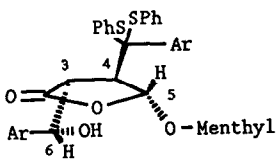
Tetrahedron Asymmetry **1991**, *2*, 109



R_2=R_3=$(CH_3O)_2C_6H_3$
e.e 100%, d e. 100% by NMR
source of chirality: synthesis from (-)-menthol
absolute configuration 4R, 5R
assigned by correlation with X-ray analysis
and NMR NOE studies

J F G A. Jansen, C. Jansen, B L Feringa

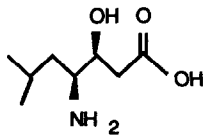
Tetrahedron Asymmetry **1991**, *2*, 109



Ar= 3-benzyloxy-4-methoxy-benzene
e.e 100%, d.e. 100% by NMR
$[\alpha]_D^{RT}$ -98 0 (c=0.6 $CHCl_3$)
source of chirality: synthesis from (-)-menthol
absolute configuration 4R, 5R
assigned by correlation with X-ray analysis
and NMR NOE studies

M Saiah, M Bessodes* and K Antonakis

Tetrahedron Asymmetry **1991**, *2*, 111



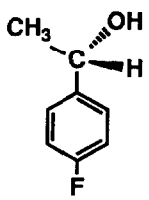
1

$[\alpha]^{20}_D$= -21 (c 0 17, H_2O), ee= 100%
Source of chirality Sharpless kinetic resolution of allylic alcohols
Starting material isovaleraldehyde

$C_8H_{17}NO_3$
(3S, 4S)-4-amino-3-hydroxy-6-methyl-heptanoic acid (statine)

Thaddeus R Nieduzak and Alexey L Margolin

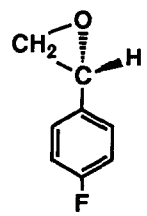
Tetrahedron Asymmetry **1991**, *2*, 113



E e ≥ 97% (^{19}F NMR of α-methoxy-α-trifluoromethylphenyl acetate ester)
$[\alpha]^{20}_D$ = -41 0 (c=1 30,$CHCl_3$)
Source of chirality enzymatic resolution
Absolute configuration S (^{1}H NMR of O-methylmandelate ester)
C_8H_9FO
S-(-)-1-(4-Fluorophenyl)ethanol

Thaddeus R Nieduzak and Alexey L Margolin

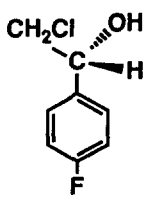
Tetrahedron Asymmetry **1991**, *2*, 113



E e ≥ 97% (^{19}F NMR of α-methoxy-α-trifluoromethylphenyl acetate ester of precursor)
$[\alpha]^{20}_D$ = -17 8 (c=1 07,$CHCl_3$)
Source of chirality enzymatic resolution
Absolute configuration R (^{1}H NMR of O-methylmandelate ester of precursor)
C_8H_7FO
R-(-)-4-Fluorostyreneoxide

Thaddeus R Nieduzak and Alexey L Margolin

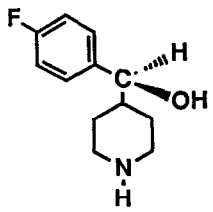
Tetrahedron. Asymmetry **1991**, *2*, 113



E e ≥ 97% (^{19}F NMR of α-methoxy-α-trifluoromethylphenyl acetate ester)
$[\alpha]^{20}_D$ = -51 0 (c=0 90,$CHCl_3$)
Source of chirality enzymatic resolution
Absolute configuration R (^{1}H NMR of O-methylmandelate ester)
C_8H_8ClFO
R-(-)-2-Chloro-(4-fluorophenyl)ethanol

Thaddeus R Nieduzak and Alexey L Margolin

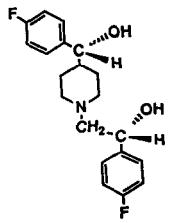
Tetrahedron Asymmetry **1991**, *2*, 113



E e ≥ 97% (^{19}F NMR of α-methoxy-α-trifluoromethylphenyl acetate ester of precursor)
$[\alpha]_D^{20}$ = -12 0 (c=1 0,CH_3OH)
Source of chirality enzymatic resolution
Absolute configuration S (^{1}H NMR of O-methylmandelate ester of precursor)
m p = 141-145 °C
$C_{12}H_{16}FNO$
S-(-)-(4-Fluorophenyl)hydroxymethyl-piperidine

Thaddeus R Nieduzak and Alexey L Margolin

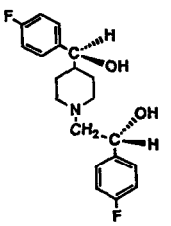
Tetrahedron Asymmetry **1991**, *2*, 113



E e ≥ 97% (^{19}F NMR of α-methoxy-α-trifluoromethylphenyl acetate ester of precursors)
$[\alpha]_D^{20}$ = -22 2 (c=0 33,$CHCl_3$)
Source of chirality enzymatic resolution
Absolute configuration R,R (^{1}H NMR of O-methylmandelate ester of precursors)
m p = 133-136 °C
$C_{20}H_{23}F_2NO_2$
(-)-1-[(R)-2-(4-Fluorophenyl)-2hydroxyethyl]-4-[(R)-(4-fluorophenyl)hydroxymethyl]-piperidine

Thaddeus R Nieduzak and Alexey L Margolin

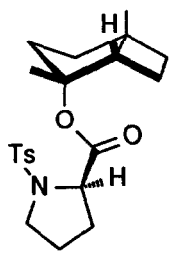
Tetrahedron Asymmetry **1991**, *2*, 113



E e ≥ 97% (^{19}F NMR of α-methoxy-α-trifluoromethylphenyl acetate ester of precursors)
$[\alpha]_D^{20}$ = -69 7 (c=0 80,$CHCl_3$)
Source of chirality enzymatic resolution
Absolute configuration R,S (^{1}H NMR of O-methylmandelate ester of precursors)
m p = 135-139 °C
$C_{20}H_{23}F_2NO_2$
(-)-1-[(R)-2-(4-Fluorophenyl)-2-hydroxyethyl]-4-[(S)-(4-fluorophenyl)hydroxymethyl]-piperidine

G Rosini,* E Marotta, A Raimondi, and P Righi

Tetrahedron Asymmetry **1991**, *2*, 123

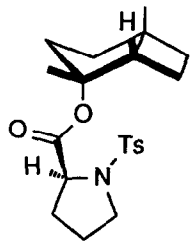


mp 91-93°C
$[\alpha]_D^{26}$ +103 59 (c 2 138, $CHCl_3$)

$C_{21}H_{29}NO_4S$
(1*S*,2*R*,5*S*)-(+)-2,5-Dimethylbicyclo[3 2.0]heptan-*endo*-2-yl
(2*R*)-1-(4-toluenesulphonyl)pyrrolidine-2-carboxylate

G Rosini,* E Marotta, A.Raimondi, and P Righi

Tetrahedron Asymmetry **1991**, *2*, 123



mp 74-76°C

$[\alpha]_D^{26}$ -43 80 (c 2 180, $CHCl_3$)

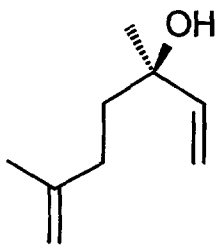
$C_{21}H_{29}NO_4S$

(1*S*,2*R*,5*S*)-(–)-2,5-Dimethylbicyclo[3 2 0]heptan-*endo*-2-yl

(2*S*)-1-(4-toluenesulphonyl)pyrrolidine-2-carboxylate

G Rosini,* E Marotta, A Raimondi, and P Righi

Tetrahedron Asymmetry **1991**, *2*, 123



bp 115-120°C/22mmHg (kugelrohr air-bath temperature)

$[\alpha]_D^{26}$ -15 66 (d 0 865)

E e ≥ 98%

Source of chirality (3R)-(–)-linalool (e e ≥ 98%) as starting material

$C_9H_{16}O$

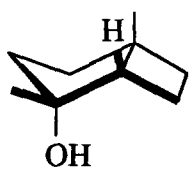
(3*R*)-(–)-3,6-Dimethylhepta-1,6-dien-3-ol

G.Rosini,* E Marotta, A Raimondi, and P Righi

Tetrahedron Asymmetry **1991**, *2*, 123

mp 56-57°C, $[\alpha]_D^{26}$ +26 40 (c 1 628, methanol)

Source of chirality (3*R*)-(–)-linalool (e e ≥ 98%) as starting material



$C_9H_{16}O$

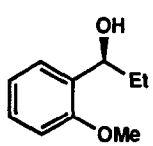
(1*S*,2*R*,5*S*)-(+)-2,5-Dimethylbicyclo[3 2 0]heptan-*endo*-2-ol

Absolute configuration assigned according to lit

(cf lit. G Rosini et al *Tetrahedron Asymmetry* **1990**, *1*, 751)

L A. Bromley, S G. Davies and C L Goodfellow

Tetrahedron Asymmetry **1991**, *2*, 139



$C_{10}H_{14}O_2$

1-(*o*-Anisyl)propanol

e e = >99 5% (by nmr of Mosher's ester)

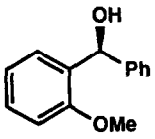
$[\alpha]_D^{20}$ = -57 (c 1 02 in toluene)

Source of chirality asymmetric synthesis

Absolute configuration· S

L.A. Bromley, S.G. Davies and C.L. Goodfellow

Tetrahedron: Asymmetry **1991**, *2*, 139



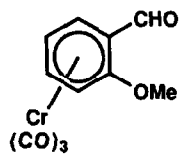
$C_{14}H_{14}O_2$

α-Phenyl-2-methoxybenzyl alcohol

e.e. = >99.5% (by nmr of $Cr(CO)_3$ complexed precursor)
$[\alpha]_D^{20}$ = -34 (c 1.2 in $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: S

L.A. Bromley, S.G. Davies and C.L. Goodfellow

Tetrahedron: Asymmetry **1991**, *2*, 139



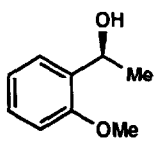
$C_{16}H_{19}CrNO_5$

tricarbonyl(η^6-*o*-anisaldehyde)chromium(0)

e.e. = >99.5% (by nmr of L-valinol derived imine)
$[\alpha]_D^{23}$ = +1016 (c 0.06 in $CHCl_3$)
Source of chirality: kinetic resolution
Absolute configuration S
(assigned by X-ray of L-valinol derived imine)

L.A. Bromley, S.G. Davies and C.L. Goodfellow

Tetrahedron: Asymmetry **1991**, *2*, 139



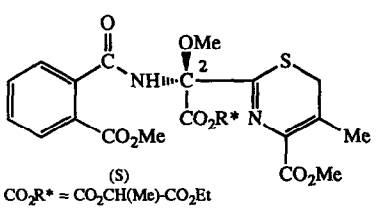
$C_9H_{12}O_2$

o-Methoxy-1-phenethanol

e.e. = >99.5% (by nmr of Mosher's ester)
$[\alpha]_D^{20}$ -59 (c 1 18 in toluene)
Source of chirality: asymmetric synthesis
Absolute configuration: S
(by X-ray of $Cr(CO)_3$ complex of O-Me deriv.)

A. Boussoufi, P. Hudhomme, P. Hitchcock and G. Duguay*

Tetrahedron: Asymmetry **1991**, *2*, 157



[2-R-(S ethyl lactate)] 2-methoxy-2-(2'-thiazinyl)glycinate

Source of chirality : (-)-(S)-Ethyl lactate
$[\alpha]_D^{20}$ - 5.1 (c = 1.37 ; $CHCl_3$)
Absolute configuration : 2 **R**-(S ethyl lactate)]
(assigned by X-Ray)