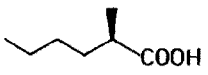
K.-H. Engel

Tetrahedron: Asymmetry **1991**, *2*, 165



$C_7H_{14}O_2$

2-Methylhexanoic acid

E.e=97% [by GC of (S)-2-octyl ester]

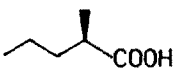
$[\alpha]_D^{20}$=-20.2 (c 5.3, Et_2O)

Source of chirality: lipase-catalyzed esterification

Absolute configuration: R

K.-H. Engel

Tetrahedron: Asymmetry **1991**, *2*, 165



$C_6H_{12}O_2$

2-Methylpentanoic acid

E.e=98% [by GC of (S)-2-octyl ester]

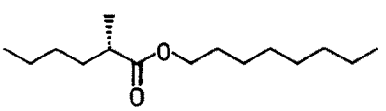
$[\alpha]_D^{20}$=-20.1 (c 5.5, Et_2O)

Source of chirality: lipase-catalyzed esterification

Absolute configuration: R

K.-H. Engel

Tetrahedron: Asymmetry **1991**, *2*, 165



$C_{15}H_{30}O_2$

Octyl 2-methylhexanoate

E.e=80% [by alkaline hydrolysis and GC of (S)-2-octyl ester]

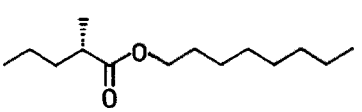
$[\alpha]_D^{20}$=+11.3 (c 5.4, Et_2O)

Source of chirality: lipase-catalyzed esterification

Absolute configuration: S

K.-H. Engel

Tetrahedron: Asymmetry **1991**, *2*, 165



$C_{14}H_{28}O_2$

Octyl 2-methylpentanoate

E.e=93% [by alkaline hydrolysis and GC of (S)-2-octylester]

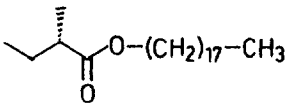
$[\alpha]_D^{20}$=+11.4 (c 5.5, Et_2O)

Source of chirality: lipase-catalyzed esterification

Absolute configuration: S

K.-H. Engel

Tetrahedron: Asymmetry **1991,** *2*, 165



$C_{23}H_{46}O_2$

Octadecyl 2-methylbutanoate

E.e=51% [by alkaline hydrolysis and GC of (R)-1-phenylethylamide]

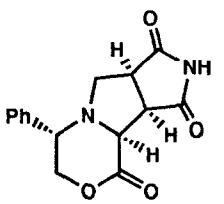
$[\alpha]_D^{20}$=+4.2 (c 5.5, Et_2O)

Source of chirality: lipase-catalyzed esterification

Absolute configuration:S

A. S. Anslow, L. M. Harwood, H. Phillips and D. Watkin

Tetrahedron: Asymmetry **1991,** *2*, 169



$C_{15}H_{14}N_2O_4$

2(*R*),6(*S*),7(*R*),8(*R*) 1–aza–4–oxa[4.3.0^{1,6}]bicyclononan–5–one–7,8–dicarboximide

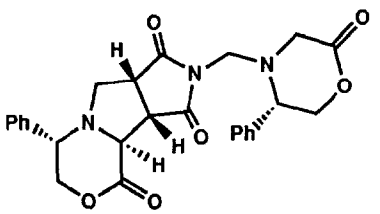
$[\alpha]^D_{20}$ = +45.3 (c 1.0, $CHCl_3$)

Source of chirality (*R*)–2-phenylglycinol

Absolute configuration : 2(*R*), 6(*S*), 7(*R*), 8(*R*)

A. S. Anslow, L. M. Harwood, H. Phillips and D. Watkin

Tetrahedron: Asymmetry **1991,** *2*, 169



N–(5'(*R*)–phenylmorpholin–2–onyl)methyl 2(*R*),6(*S*),7(*R*),8(*R*) 1–aza–4–oxa[4.3.0^{1,6}]bicyclononan–5–one–7,8–dicarboximide

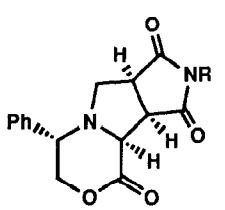
$[\alpha]^D_{20}$ = +13.0 (c 1.0, $CHCl_3$)

Source of chirality (*R*)–2-phenylglycinol

Absolute configuration : 2(*R*), 6(*S*), 7(*S*), 8(*S*), 5'(*R*)

A. S. Anslow, L. M. Harwood, H. Phillips and D. Watkin

Tetrahedron: Asymmetry **1991,** *2*, 169



N–methyl (or phenyl) 2(*R*),6(*S*),7(*R*),8(*R*) 1–aza–4–oxa[4.3.0^{1,6}]bicyclononan–5–one–7,8–dicarboximide

R = Me : $C_{16}H_{16}N_2O_4$ $[\alpha]^D_{20}$ = +45.0 (c 1.0, $CHCl_3$)

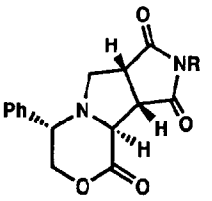
R = Ph : $C_{21}H_{18}N_2O_4$ $[\alpha]^D_{20}$ = –42.3 (c 0.6, $CHCl_3$)

Source of chirality (*R*)–2-phenylglycinol

Absolute configuration : 2(*R*), 6(*S*), 7(*R*), 8(*R*)

A. S. Anslow, L. M. Harwood, H. Phillips and D. Watkin

Tetrahedron: Asymmetry **1991,** *2*, 169



R = Me : $C_{16}H_{16}N_2O_4$ $[\alpha]^D_{20}$ = +30.9 (c 1.0, $CHCl_3$)

R = Ph : $C_{21}H_{18}N_2O_4$ $[\alpha]^D_{20}$ = +88.0 (c 0.25, $CHCl_3$)

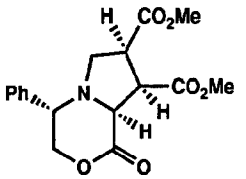
Source of chirality (*R*)–2-phenylglycinol

Absolute configuration : 2(*R*), 6(*S*), 7(*S*), 8(*S*)

N–methyl (or phenyl) 2(*R*),6(*S*),7(*S*),8(*S*) 1–aza–4–oxa[4.3.0^{1,6}]bicyclononan–5–one–7,8–dicarboximide

A. S. Anslow, L. M. Harwood, H. Phillips and D. Watkin

Tetrahedron: Asymmetry **1991,** *2*, 169



$[\alpha]^D_{20}$ = +6.0 (c 0.73, $CHCl_3$)

Source of chirality (*R*)–2-phenylglycinol

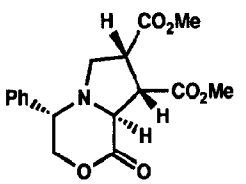
Absolute configuration : 2(*R*), 6(*S*), 7(*R*), 8(*R*)

$C_{17}H_{19}NO_6$

2(*R*),6(*S*),7(*R*),8(*R*) dimethyl 1–aza–4–oxa[4.3.0^{1,6}]bicyclononan–5–one–7,8–dicarboxylate

A. S. Anslow, L. M. Harwood, H. Phillips and D. Watkin

Tetrahedron: Asymmetry **1991,** *2*, 169



$[\alpha]^D_{20}$ = –14.7 (c 0.87, $CHCl_3$)

Source of chirality (*R*)–2-phenylglycinol

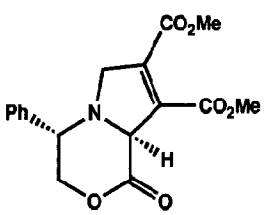
Absolute configuration : 2(*R*), 6(*S*), 7(*S*), 8(*S*)

$C_{17}H_{19}NO_6$

2(*R*),6(*S*),7(*S*),8(*S*) dimethyl 1–aza–4–oxa[4.3.0^{1,6}]bicyclononan–5–one–7,8–dicarboxylate

A. S. Anslow, L. M. Harwood, H. Phillips and D. Watkin

Tetrahedron: Asymmetry **1991,** *2*, 169



$[\alpha]^D_{20}$ = –76.0 (c 0.82, $CHCl_3$)

Source of chirality (*R*)–2-phenylglycinol

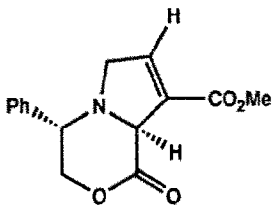
Absolute configuration : 2(*R*), 6(*S*)

$C_{17}H_{17}NO_6$

2(*R*), 6(*S*) dimethyl 1–aza–4–oxa[4.3.0^{1,6}]bicyclononan–7–en–5–one–7,8–dicarboxylate

A. S. Anslow, L. M. Harwood, H. Phillips and D. Watkin

Tetrahedron: Asymmetry **1991,** 2, 169



$C_{15}H_{15}NO_4$

$[\alpha]^{D}_{20}$ = –32.8 (c 0.83, $CHCl_3$)

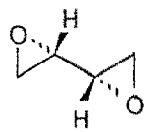
Source of chirality (*R*)–2-phenylglycinol

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

2(*R*), 6(*S*) methyl 1–aza–4–oxa[4.3.0^{1,6}]bicyclononan–7–en–5–one–7–carboxylate

S-q. Zhang, S-y. Zhang and R. Feng

Tetrahedron: Asymmetry **1991,** 2, 173



$C_4H_6O_2$

(S,S)-1,2:3,4-diepoxy-butane

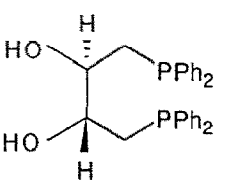
E.e. = 100 %

$[\alpha]^{22}_{D}$ = -24 (c, 4.5 in CCl_4)

Source of chirality: (R,R)-tartaric acid

S-q. Zhang, S-y. Zhang and R. Feng

Tetrahedron: Asymmetry **1991,** 2, 173



$C_{28}H_{28}O_2P_2$

(2R,3R)-1,4-bis(diphenylphosphino)-2,3-butanediol

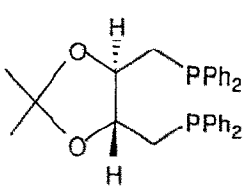
E.e. = 100 %

$[\alpha]^{22}_{D}$ = -34.2 (c, 0.76 in $CHCl_3$)

Source of chirality: (R,R)-tartaric acid

S-q. Zhang, S-y. Zhang and R. Feng

Tetrahedron: Asymmetry **1991,** 2, 173



$C_{31}H_{32}O_2P_2$

(2R,3R)-2,3-O-isopropylidene-2,3-dihydroxy-1,4-bis-(diphenylphosphino) butane (DIOP)

E.e. = 100 %

$[\alpha]^{22}_{D}$ = -12.5 (c, 4.19 in benzene)

Source of chirality: (R,R)-tartaric acid

A. Alami, M. Calmes, J. Daunis, F. Escale, R. Jacquier
M-L. Roumestant and P. Viallefont

Tetrahedron: Asymmetry **1991**, 2, 175

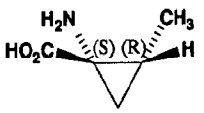
$C_5H_9NO_2$

2-Methyl-1-aminocyclopropane-1-carboxylic acid

ee⇒ 99%
$[\alpha]_D^{20}$ -45 (c = 0.4, H_2O)
Absolute configuration : 1R,2R
Source of chirality : asymmetric synthesis

A. Alami, M. Calmes, J. Daunis, F. Escale, R. Jacquier
M-L. Roumestant and P. Viallefont

Tetrahedron: Asymmetry **1991**, 2, 175



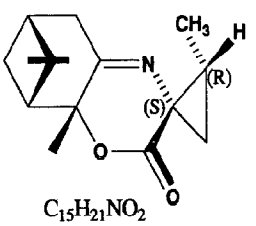
$C_5H_9NO_2$

2-Methyl-1-aminocyclopropane-1-carboxylic acid

ee ⇒ 99%
$[\alpha]_D^{20}$ -75 (c = 0.3, H_2O)
Absolute configuration : 1S,2R
Source of chirality : asymmetric synthesis

A. Alami, M. Calmes, J. Daunis, F. Escale, R. Jacquier
M-L. Roumestant and P. Viallefont

Tetrahedron: Asymmetry **1991**, 2, 175



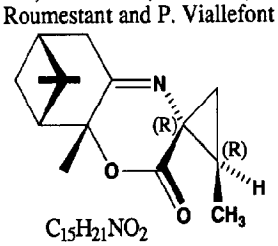
$C_{15}H_{21}NO_2$

3-(Pinano[2,3-b]4,5-dehydro-morpholine-2-one]-spiro-1'-(2'-methyl cyclopropane)

ee ⇒ 99%
$[\alpha]_D^{20}$ -272 (c = 5, CH_2Cl_2)
Absolute configuration : 3S,5aR,6aR,6bR,8R
Source of chirality : Asymmetric synthesis

A. Alami, M. Calmes, J. Daunis, F. Escale, R. Jacquier
M-L. Roumestant and P. Viallefont

Tetrahedron: Asymmetry **1991**, 2, 175



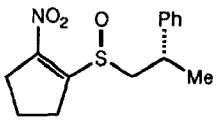
$C_{15}H_{21}NO_2$

3-(Pinano[2,3-b]4,5-dehydro-morpholine-2-one]-spiro-1'-(2'-methyl cyclopropane)

ee ⇒ 99%
$[\alpha]_D^{20}$ -192 (c = 5, CH_2Cl_2)
Absolute configuration : 3R,5aR,6aR,6bR,8R
Source of chirality : Asymmetric synthesis

K. Fuji, K. Tanaka, H. Abe, M. Node, T. Taga, Y. Miwa, M. Shiro

Tetrahedron: Asymmetry **1991,** 2, 179



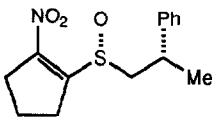
$C_{14}H_{17}NO_3S$

E.e. = 100%
$[\alpha]_D^{20}$ = -72.9 (c = 1.68, $CHCl_3$)
Source of chirality: (*S*)-Phenylpropionic acid
Absolute configuration: *SS*, 2*S*
Use: Chiral dienophile for asymmetric Diels -Alder reaction

(*SS*,2*S*)-1-(2-phenylpropylsulfinyl)-2-nitrocyclopentene

K. Fuji, K. Tanaka, H. Abe, M. Node, T. Taga, Y. Miwa, M. Shiro

Tetrahedron: Asymmetry **1991,** 2, 179



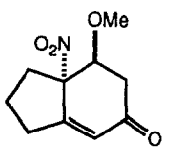
$C_{14}H_{17}NO_3S$

E.e. = 100%
$[\alpha]_D^{20}$ = +388.3 (c = 0.84, $CHCl_3$)
Source of chirality: (*S*)-Phenylpropionic acid
Absolute configuration: *SR*, 2*S*
Use: Chiral dienophile for asymmetric Diels -Alder reaction

(*SR*,2*S*)-1-(2-phenylpropylsulfinyl)-2-nitrocyclopentene

K. Fuji, K. Tanaka, H. Abe, M. Node, T. Taga, Y. Miwa, M. Shiro

Tetrahedron: Asymmetry **1991,** 2, 179



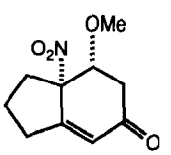
$C_{10}H_{13}NO_4$

E.e. = >95% [^{1}H-NMR with $Eu(hfc)_3$]
$[\alpha]_D^{22}$ = +87.1 (c = 1.00, $CHCl_3$)
Source of chirality: Asymmetric Diels-Alder reaction with chiral sulfoxide
Absolute configuration: 1*S*, 2*S*

(1*S*,2*S*)-Bicyclo[4,3,0]-1-nitro-2-methoxy-5-nonene-4-one

K. Fuji, K. Tanaka, H. Abe, M. Node, T. Taga, Y. Miwa, M. Shiro

Tetrahedron: Asymmetry **1991,** 2, 179



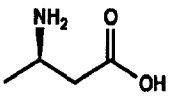
$C_{10}H_{13}NO_4$

E.e. = >95% [^{1}H-NMR with $Eu(hfc)_3$]
$[\alpha]_D^{22}$ = +302.5 (c = 1.62, $CHCl_3$)
Source of chirality: Asymmetric Diels-Alder reaction with chiral sulfoxide
Absolute configuration: 1*S*, 2*R*

(1*S*,2*R*)-Bicyclo[4,3,0]-1-nitro-2-methoxy-5-nonene-4-one

S.G. Davies and O. Ichihara

Tetrahedron: Asymmetry **1991**, *2*, 183



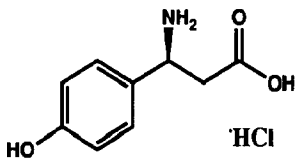
$C_{14}H_9NO_2$

3-Amino butanoic acid

E.e. = 100%
$[\alpha]_D^{19}$ -39.8 (c = 0.47, H_2O)
Source of chirality: asymmetric synthesis
Absolute configuration: R.

S.G. Davies and O. Ichihara

Tetrahedron: Asymmetry **1991**, *2*, 183



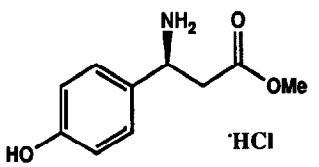
$C_9H_{12}ClNO_3$

β-Tyrosine HCl

E.e. = >99%
$[\alpha]_D^{25}$ +3.55 (c = 1.38, H_2O)
Source of chirality: asymmetric synthesis
Absolute configuration: S

S.G. Davies and O. Ichihara

Tetrahedron: Asymmetry **1991**, *2*, 183



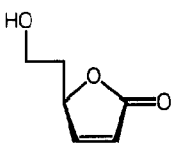
$C_{10}H_{14}ClNO_3$

β-Tyrosine methyl ester.HCl

E.e. = >99%
(by ^1H nmr with S-2,2,2-trifluoro-1-(9-anthryl)ethanol
$[\alpha]_D^{20}$ +10.55 (c = 1.9, H_2O)
Source of chirality: asymmetric synthesis
Absolute configuration: S established by correlation with S-β-tyrosine.HCl

B. Herradon

Tetrahedron: Asymmetry **1991**, *2*, 191



$C_6H_8O_3$

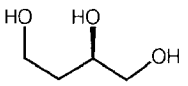
(R)-5-(2-Hydroxyethyl)-2(5H)-furanone

$[\alpha]_D^{25}$ = - 48.2 (c 2.2, $CHCl_3$)

Source of chirality: synthesis from (R)-malic acid

B. Herradon

Tetrahedron: Asymmetry **1991,** *2*, 191



$[\alpha]_D^{25}$ = + 27.5 (c 1.1, MeOH)

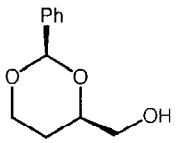
$C_4H_{10}O_3$

Source of chirality: synthesis from (R)-malic acid

(R)-1,2,4-Butanetriol

B. Herradon

Tetrahedron: Asymmetry **1991,** *2*, 191



$[\alpha]_D^{25}$ = - 9.4 (c 1.2, $CHCl_3$)

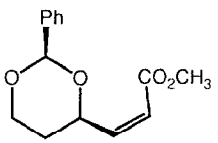
Source of chirality: synthesis from (R)-malic acid

$C_{11}H_{14}O_3$

(R,R)-4-Hydroxymethyl-2-phenyl-1,3-dioxane

B. Herradon

Tetrahedron: Asymmetry **1991,** *2*, 191



$[\alpha]_D^{25}$ = - 63.2 (c 1.2, $CHCl_3$)

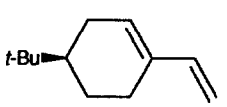
Source of chirality: synthesis from (R)-malic

$C_{14}H_{16}O_4$

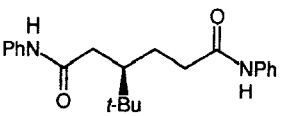
Methyl (Z)-3-[(R,R)-2-phenyl-1,3-dioxan-4-yl]propenoate

T. Hayashi, K. Kishi, and Y. Uozumi

Tetrahedron: Asymmetry **1991,** *2*, 195



E.e. = 21% [by converting into



and HPLC with chiral stationary phase column, Sumipax OA-3100]

$[\alpha]_D^{21}$ –23.4 (*c* 1.0, chloroform)

$C_{12}H_{20}$

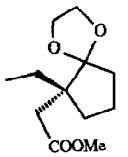
4-*tert*-butyl-1-vinylcyclohexene

Source of chirality: catalytic asymmetric elimination of 4-*tert*-butyl-1-vinylcyclohexyl acetate

Absolute configuration: *R* (oxidized into (*R*)-3-*tert*-butylhexanedioic acid)

J. d'Angelo, G. Revial, P.R.R. Costa, R.N. Castro, O.A.C. Antunes

Tetrahedron: Asymmetry **1991,** *2*, 199



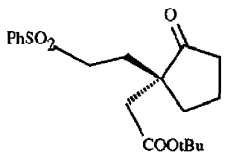
ee 86% (by ^{1}H NMR)
$[\alpha]^{20}_D$ = -1.9° (c 10.5 MeOH)
source of chirality : asymm. Michael
absolute configuration : 6 R

$C_{12}H_{20}O_4$

2,5-dioxaspiro[4,4]decane-6-ethyl-6-acetic acid, methyl ester

J. d'Angelo, G. Revial, P.R.R. Costa, R.N. Castro, O.A.C. Antunes

Tetrahedron: Asymmetry **1991,** *2*, 199



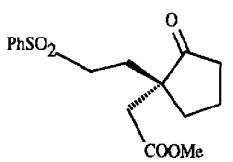
ee 86% (by ^{1}H NMR)
$[\alpha]^{20}_D$ = -0.6° (c 5, MeOH)
source of chirality : asymm. Michael
absolute configuration : 1 S

$C_{19}H_{26}O_5S$

2-oxo-1(2-phenylsulfonylethyl)-cyclopentylacetic acid, *t*-butyl ester

J. d'Angelo, G. Revial, P.R.R. Costa, R.N. Castro, O.A.C. Antunes

Tetrahedron: Asymmetry **1991,** *2*, 199



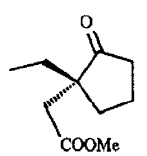
ee 86% (by ^{1}H NMR)
$[\alpha]^{20}_D$ = -1.0° (c 5.0, MeOH)
source of chirality : asymm. Michael
absolute configuration : 1 S

$C_{16}H_{20}O_5S$

2-oxo-1(2-phenylsulfonylethyl)-cyclopentylacetic acid, methyl ester

J. d'Angelo, G. Revial, P.R.R. Costa. R.N. Castro, O.A.C. Antunes

Tetrahedron: Asymmetry **1991,** *2*, 199



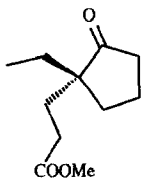
ee 86% (by capillary VPC)
$[\alpha]^{20}_D$ = -2.3° (c 6.2, CCl_4)
source of chirality : asymm. Michael
absolute configuration : 1 R

$C_{10}H_{16}O_3$

1-ethyl-2-oxo-cyclopentylacetic acid, methyl ester

J. d'Angelo, G. Revial, P.R.R. Costa, R.N. Castro, O.A.C. Antunes

Tetrahedron: Asymmetry **1991,** *2*, 199



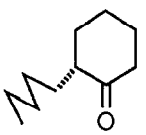
ee 90 % (by capillary VPC)
$[\alpha]^{20}_D$ = -8.4° (c 3, EtOH)
source of chirality : asymm. Michael
absolute configuration : 1 R

$C_{11}H_{18}O_3$

3-(1-ethyl-2-oxo-cyclopentyl)-propionic acid, methyl ester

P. DUHAMEL, M. KOTERA and B. MARABOUT

Tetrahedron: Asymmetry **1991,** *2*, 203



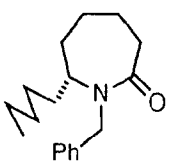
E.e. = 78% [by Wynberg's method]
$[\alpha]_D^{25}$=-17.8 (c=5, MeOH)
Source of chirality: asymmetric synthesis
Absolute configuration: R (assigned by analogy to J. Amer. Chem. Soc., 1976, **98**, 3032)

$C_{11}H_{20}O$

2-Pentylcyclohexanone

P. DUHAMEL, M. KOTERA and B. MARABOUT

Tetrahedron: Asymmetry **1991,** *2*, 203



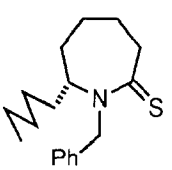
E.e. = 74% [by nmr with Eu(hfc)$_3$]
$[\alpha]_D^{25}$=+13.0 (c=6, MeOH)
Source of chirality: asymmetric synthesis
Absolute configuration: R

$C_{18}H_{27}NO$

N-Benzyl-7-pentylhexahydroazepin-2-one

P. DUHAMEL, M. KOTERA and B. MARABOUT

Tetrahedron: Asymmetry **1991,** *2*, 203



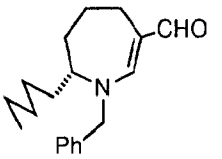
E.e. = >95% [by nmr of a derivative with Eu(hfc)$_3$]
$[\alpha]_D^{25}$=+65.8 (c=5, MeOH)
Source of chirality: asymmetric synthesis
Absolute configuration: R

$C_{18}H_{27}NS$

N-Benzyl-7-pentylhexahydroazepin-2-thione

P. DUHAMEL, M. KOTERA and B. MARABOUT

Tetrahedron: Asymmetry **1991**, *2*, 203



$C_{19}H_{27}NO$

N-Benzyl-7-pentyl-[1H]-4,5,6,7-tetrahydroazepine-3-carbaldehyde

E.e. = >95% [by nmr with $Eu(hfc)_3$]

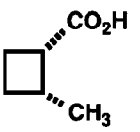
$[\alpha]_D^{25}$=+164 (c=5, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: R

Tetrahedron: Asymmetry **1991**, *2*, 207

E. J. Toone and J. B. Jones



$C_6H_{10}O_2$

(+)-(1*S*,2*R*)-1-carboxy-2-methylcyclobutane

E.e. = >97% (by NMR with (+)-1-methylbenzylamine)

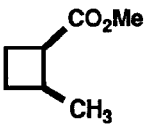
$[\alpha]_D^{25}$ = +6.8 (c 16.2, $CHCl_3$)

Source of chirality: Enantioselective enzymic hydrolysis

Absolute configuration: 1*S*,2*R*

Tetrahedron: Asymmetry **1991**, *2*, 207

E. J. Toone and J. B. Jones



$C_7H_{12}O_2$

(-)-(1*R*,2*S*)-1-carbomethoxy-2-methylcyclobutane

E.e. = >97% (by NMR with$Eu(hfc)_3$)

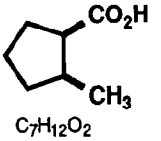
$[\alpha]_D^{25}$ = -19.4 (c 5.0, $CHCl_3$)

Source of chirality: Enantioselective enzymic hydrolysis

Absolute configuration: 1*R*,2*S*

Tetrahedron: Asymmetry **1991**, *2*, 207

E. J. Toone and J. B. Jones



$C_7H_{12}O_2$

(+)-(1*R*,2*S*)-1-carboxy-2-methylcyclopentane

E.e. = 22 % (by NMR with (+)-1-methylbenzylamine)

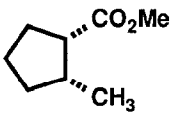
$[\alpha]_D^{25}$ = +2.4 (c 24.9, $CHCl_3$)

Source of chirality: Enantioselective enzymic hydrolysis

Absolute configuration: 1*R*,2*S*

Tetrahedron: Asymmetry **1991,** *2*, 207

E. J. Toone and J. B. Jones



$C_8H_{14}O_2$

(+)-(1*S*,2*R*)-1-carbomethoxy-2-methylcyclopentane

E e. = 17% (by NMR withEu(hfc)$_3$)

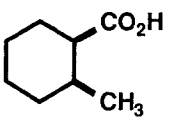
$[\alpha]_D^{25}$ =+5.6 (c 14.8, $CHCl_3$)

Source of chirality: Enantioselective enzymic hydrolysis

Absolute configuration: 1*S*,2*R*

Tetrahedron: Asymmetry **1991,** *2*, 207

E. J. Toone and J. B. Jones



$C_8H_{14}O_2$

(+)-(1*R*,2*S*)-1-carboxy-2-methylcyclohexane

E.e. = >97% (by NMR with (+)-1-methylbenzylamine)

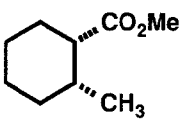
$[\alpha]_D^{25}$ = +7 4 (c 37.2, $CHCl_3$)

Source of chirality: Enantioselective enzymic hydrolysis

Absolute configuration. 1*R*,2*S*

Tetrahedron: Asymmetry **1991,** *2*, 207

E J. Toone and J. B Jones



$C_9H_{16}O_2$

(-)-(1*S*,2*R*)-1-carbomethoxy-2-methylcyclohexane

E.e. = >97% (by NMR withEu(hfc)$_3$)

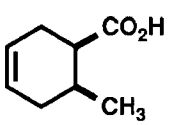
$[\alpha]_D^{25}$ = -0.41 (c 32 4, $CHCl_3$)

Source of chirality: Enantioselective enzymic hydrolysis

Absolute configuration. 1*S*,2*R*

Tetrahedron: Asymmetry **1991,** *2*, 207

E. J Toone and J. B. Jones



$C_8H_{12}O_2$

(-)-(1*R*,2*S*)-1-carboxy-2-methyl-4-cyclohexene

E.e. =>97 % (by NMR with (+)-1-methylbenzylamine)

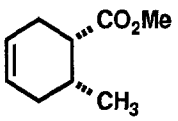
$[\alpha]_D^{25}$ = -26 9 (c 26, $CHCl_3$)

Source of chirality: Enantioselective enzymic hydrolysis

Absolute configuration. 1*R*,2*S*

Tetrahedron: Asymmetry **1991**, 2, 207

E. J. Toone and J. B. Jones



$C_9H_{14}O_2$

(+)-(1*S*,2*R*)-1-carbomethoxy-2-methyl-4-cyclohexene

E.e. = >97% (by NMR withEu(hfc)$_3$)

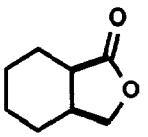
$[\alpha]_D^{25}$ =+18.1 (c 34, $CHCl_3$)

Source of chirality: Enantioselective enzymic hydrolysis

Absolute configuration: 1*S*,2*R*

Tetrahedron: Asymmetry **1991**, 2, 207

E. J. Toone and J. B. Jones



(-)-(1R,6S)-11

98%, ≥97% *ee*

$C_8H_{12}O_2$

(-)-(1*R*,6*S*)-8-oxabicyclo[4.3.0]nonan-9-one

E.e. = >97% (by NMR withEu(hfc)$_3$)

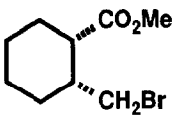
$[\alpha]_D^{25}$ = -38.0 (c 2.37, $CHCl_3$)

Source of chirality: Enantioselective enzymic hydrolysis

Absolute configuration: 1*R*,6*S*

Tetrahedron: Asymmetry **1991**, 2, 207

E. J. Toone and J. B. Jones



$C_9H_{15}O_2Br$

(+)-(1*S*,2*R*)-1-carbomethoxy-2-bromomethylcyclohexane

E.e. = >97% (by NMR withEu(hfc)$_3$)

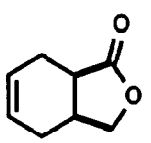
$[\alpha]_D^{25}$ = +11.3 (c 41.0, $CHCl_3$)

Source of chirality: Enantioselective enzymic hydrolysis

Absolute configuration: 1*S*,2*R*

Tetrahedron: Asymmetry **1991**, 2, 207

E J. Toone and J. B. Jones



$C_8H_{10}O_2$

(+)-(1*R*,6*S*)-8-oxabicyclo[4.3.0]non-3-ene-9-one

E.e. =>97 % (by NMR withEu(hfc)$_3$)

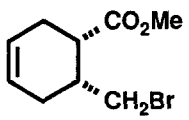
$[\alpha]_D^{25}$ =+50.9 (c 18.1, $CHCl_3$)

Source of chirality: Enantioselective enzymic hydrolysis

Absolute configuration: 1*R*,6*S*

Tetrahedron: Asymmetry **1991,** *2*, 207

E J. Toone and J. B. Jones



$C_9H_{13}O_2Br$

(+)-(1*S*,2*R*)-1-carbomethoxy-2-bromomethyl-4-cyclohexene

E.e. = >97% (by NMR with $Eu(hfc)_3$)

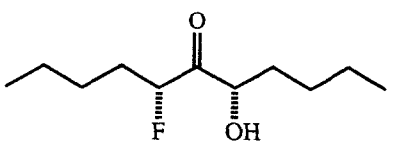
$[\alpha]_D^{25}$ =+29.0 (c 31, $CHCl_3$)

Source of chirality: Enantioselective enzymic hydrolysis

Absolute configuration: 1*S*,2*R*

Tetrahedron: Asymmetry **1991,** *2*, 223

C. Gosmini, T. Dubuffet, R. Sauvêtre, J.-F. Normant.



7-fluoro undecan-5-ol-6-one

E.e. > 95% [NMR]

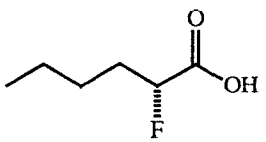
$[\alpha]_D^{24}$ = + 128.84 (c = 6.9, $CHCl_3$)

Source of chilarity : asymmetric epoxidation of fluorinated allylic alcohols

Absolute configuration : 5S, 7R.

Tetrahedron: Asymmetry **1991,** *2*, 223

C. Gosmini, T. Dubuffet, R. Sauvêtre, J.-F. Normant.



2-fluorohexanoic acid

E.e. > 95% [NMR]

$[\alpha]_D^{25}$ = + 14.06 (c = 1.7, $CHCl_3$)

Source of chilarity : asymmetric epoxidation of fluorinated allylic alcohols

Absolute configuration : R