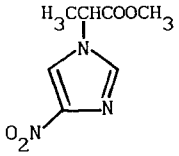
J. Suwiński and W. Szczepankiewicz

Tetrahedron: Asymmetry **1991**, 2, 941



$C_7H_9N_3O_4$

2-(4-nitro-1-imidazolyl)ethanecarboxylic acid methyl ester

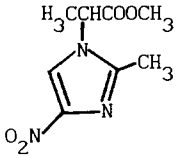
$[\alpha]_{546}^{25}$ = +34.0 (c=1.25, MeOH)

Source of chirality: S-alanine methyl ester

Absolute configuration: 2S

J. Suwiński and W. Szczepankiewicz

Tetrahedron: Asymmetry **1991**, 2, 941



$C_8H_{11}N_3O_4$

2-(2-methyl-4-nitro-1-imidazolyl)ethanecarboxylic acid methyl ester

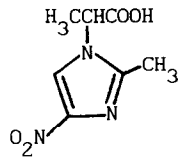
$[\alpha]_{546}^{25}$ = +17.2 (c=1, MeCN)

Source of chirality: S-alanine methyl ester

Absolute configuration: 2S

J. Suwiński and W. Szczepankiewicz

Tetrahedron: Asymmetry **1991**, 2, 941



$C_8H_9N_3O_4$

2-(2-methyl-4-nitro-1-imidazolyl)ethanecarboxylic acid

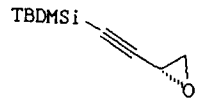
$[\alpha]_{546}^{25}$ = +39.0 (c=1, DMF)

Source of chirality: S-alanine

Absolute configuration: 2S

M. Lopp, T. Kanger, A. Müraus, T. Pehk and Ü. Lille

Tetrahedron: Asymmetry **1991**, 2, 943



(R)-1-*t*-Butyldimethyl-silyl-3,4-epoxy-but-1-yne

$[\alpha]_D^{20}$ = -72.3 (c=5.63, CH_2Cl_2)

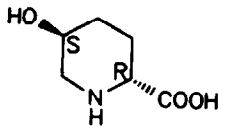
E.e.> 99% [by HPLC and ^{13}C NMR analysis of the (R)-MPTA ester of oct-1-yn-3-ol derived from the chiron]

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

Absolute configuration: 3R

C. Herdeis*, W. Engel

Tetrahedron: Asymmetry **1991**, *2*, 945



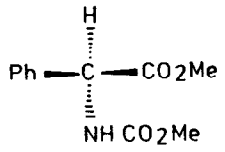
$C_6H_{11}NO_3$

homochiral-single diastereomer derived from
(S)-5-Hydroxy-2-piperidone
$[\alpha]_D^{20}$=+22.8 (c=1,MeOH)
Source of chirality: (S)-5-Hydroxy-2-piperidone
Absolute configuration: 2R,5S

2(R),5(S)-5-Hydroxypipecolic acid

J.A.J.M. Vekemans, J.P.G. Versleijen and H.M. Buck

Tetrahedron: Asymmetry **1991**, 2, 949



$C_{11}H_{13}NO_4$
Methyl N-carbomethoxyphenylglycinate

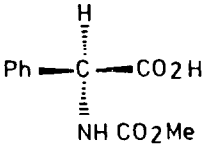
E.e. = 50% [by ^{1}H-NMR with (+)-Eu(hfc)$_3$ in C_6D_6]
$[\alpha]_D^{20}$= +73 (c 1.0, MeOH) [100% ee: $[\alpha]_D^{20}$= +146]

Source of chirality: enantioselective hydride transfer from *S*-N,N,1,2,4-pentamethyl-1,4-dihydronicotinamide [optical yield > 95%]

Absolute configuration *S*

J.A.J.M. Vekemans, J.P.G. Versleijen and H.M. Buck

Tetrahedron: Asymmetry **1991**, *2*, 949



$C_{10}H_{11}NO_4$
N-Carbomethoxyphenylglycine

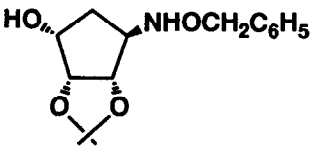
E.e. = 50% [by ^{1}H-NMR with (+)-Eu(hfc)$_3$ in C_6D_6]
$[\alpha]_D^{20}$= +80 (c 1.0, MeOH) [100% ee: $[\alpha]_D^{20}$= +163]

Source of chirality: enantioselective hydride transfer from *S*-N,N,1,2,4-pentamethyl-1,4-dihydronicotinamide [optical yield > 95%]

Absolute configuration *S*

J. Contelles,* L. Martínez and A.M. Grau

Tetrahedron: Asymmetry **1991**, 2, 961

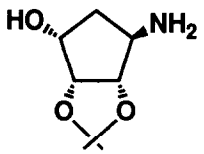


$C_{15}H_{21}NO_4$
(1R,2R,3S,4R)-4-O-Benzylhydroxylamine--2,3-O-isopropylidene-1,2,3-cyclopentanetriol

$[\alpha]_D^{25}$ +4.8 (c 3.6, $CHCl_3$)
Source of chirality: D-Ribonolactone
Absolute configuration: 1(R), 2(R), 3(S), 4(R)

J. Contelles,* L. Martínez and A.M. Grau

Tetrahedron: Asymmetry **1991,** 2, 961



$C_8H_{15}NO_3$

(1R,2R,3S,4R)-4-amino-
-2,3-O-isopropylidene-
1,2,3-cyclopentanetriol

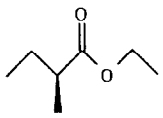
$([\alpha]_D^{25}$ +33 (c 0.26, $CHCl_3)$

Source of chirality: D-ribonolactone

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

Klaus Rettinger, Christian Burschka, Peter Scheeben , Heike Fuchs and Armin Mosandl

Tetrahedron: Asymmetry **1991,** 2, 965



Ethyl-2-methylbutanoate

E.e. >98% (prepared from optically pure acid without racemization

Absolute configuration:
via corresponding acid, comparison with naturally occuring (S)-enantiomer (GC) on perethyl-β-cyclodextrin

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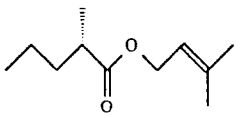
Klaus Rettinger, Christian Burschka, Peter Scheeben , Heike Fuchs and Armin Mosandl

Tetrahedron: Asymmetry **1991,** 2, 965



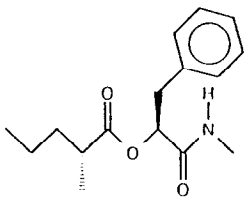
Prenyl-2-methylpentanoate

E.e. 80% (by parallel reaction of the same acid chloride with (S)-(-)-1-phenylethylamine (GC)

Absolute configuration:
via corresponding acid

Klaus Rettinger, Christian Burschka, Peter Scheeben , Heike Fuchs and Armin Mosandl

Tetrahedron: Asymmetry **1991,** 2, 965

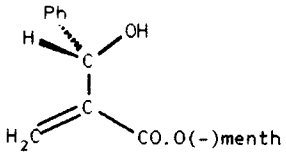


(2-methylpentanoyloxy)-3-phenylpropionic acid-N-methylamide

E.e. 100%
Absolute configuration:
via X-ray diffraction
Crystal data: Fachinformationszentrum Energie, Physik, Mathematik ,
D-7514 Eggenstein-Leopoldshafen 2
deposition No. CSD 55599

A.Gilbert, T.W.Heritage and N.S.Isaacs

Tetrahedron: Asymmetry **1991,** *2*, 969



$C_{20}H_{28}O_3$

(-)-menthyl α-(hydroxybenzyl)acrylate

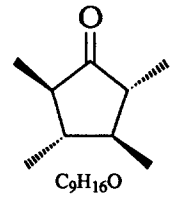
E.e. 100% (by HPLC using DNBPL)

Source of chirality: asymm. synth. by Baylis-Hillman reaction

Absolute configuration S (inferred from molecular modelling

Norbert Hoffmann, Hans-Dieter Scharf*

Tetrahedron: Asymmetry **1991,** 2, 977



$C_9H_{16}O$

alltrans -2,3,4,5-Tetramethylcyclopentanone

E.e. 90% [by Mosher's method of the corresponding alcohol]

$[\alpha]_D^{23}$ = - 107.7 (c = 1.020, $CHCl_3$)

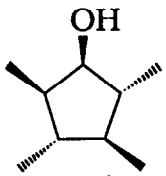
CD: $\Delta\varepsilon$ = -4.4 (λ = 304 nm, T = 10°C, c = 0.453 acetonitrile)

Source of chirality: Optical resolution of the corresponding alcohol with R-(+)-phenylethylamine.

Absolute configuration 2*R*, 3*S*, 4*S*, 5*R* [asigned by CD].

Norbert Hoffmann, Hans-Dieter Scharf*,

Tetrahedron: Asymmetry **1991,** *2*, 977



$C_9M_{18}O$

alltrans -2,3,4,5-Tetramethylcyclopentanol

E.e. 90% [by Mosher's method]

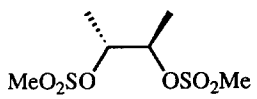
$[\alpha]_D^{23}$ = + 12.7 (c = 0.992, $CHCl_3$)

Source of chirality: Optical resolution with R-(+)-phenylethylamine.

Absolute configuration 2*R*, 3*S*, 4*S*, 5*R*
[asigned by CD of the ketone optained by oxidation].

S. Y. M. Chooi, P. H. Leung, S. C. Ng,
G. H. Quek, K. Y. Sim

Tetrahedron: Asymmetry **1991,** 2, 981



$C_6H_{14}O_6S_2$

(*R*,*R*)-2,3-Butanediol dimethylsulphonate

E.e. = 100%

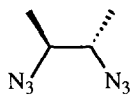
$[\alpha]_D^{22}$ = +2.8 (c 1.0, $CHCl_3$)

Source of chirality: from natural (-)-2,3-butanediol

Absolute configuration: 2*R*,3*R*

S. Y. M. Chooi, P. H. Leung, S. C. Ng, G. H. Quek, K. Y. Sim

Tetrahedron: Asymmetry **1991,** *2*, 981



$C_4H_8N_6$

(*S*,*S*)-2,3-Diazidobutane

E.e. = 100%

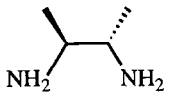
$[\alpha]_D^{22}$ = +115.2 (c 1.0, CH_2Cl_2)

Source of chirality: from natural (-)-2,3-butanediol

Absolute configuration: 2*S*,3*S*

S. Y. M. Chooi, P. H. Leung, S. C. Ng, G. H. Quek, K. Y. Sim

Tetrahedron: Asymmetry **1991,** 2, 981



$C_4H_{12}N_2$

(*S*,*S*)-2,3-Diaminobutane

E.e. = 100%

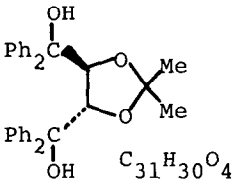
$[\alpha]_D^{22}$ = +29.4 (c 2.4, C_6H_6)

Source of chirality: from natural (-)-2,3-butanediol

Absolute configuration: 2*S*,3*S*

F. Toda, S. Matsuda, K. Tanaka

Tetrahedron: Asymmetry **1991,** *2*, 983



$C_{31}H_{30}O_4$

trans-2,3-Bis(hydroxydiphenylmethyl)-5,5-dimethyl-1,4-dioxacyclopentane

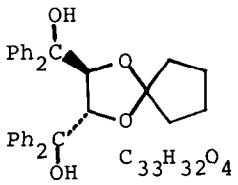
E.e.=100%[prepared from optically pure tartaric acid]

$[\alpha]_D$ -60.6 (*c* 1.00, $CHCl_3$)

Absolute configuration: *R*,*R*

F. Toda, S. Matsuda, K. Tanaka

Tetrahedron: Asymmetry **1991,** 2, 983



$C_{33}H_{32}O_4$

trans-2,3-Bis(hydroxydiphenylmethyl)-1,4-dioxaspiro[4.4]nonane

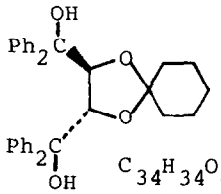
E.e.=100%[prepared from optically pure tartaric acid]

$[\alpha]_D$ -35.2 (*c* 1.00, $CHCl_3$)

Absolute configuration: *R*,*R*

F. Toda, S. Matsuda, K. Tanaka

Tetrahedron: Asymmetry **1991**, *2*, 983



$C_{34}H_{34}O_4$

trans-2,3-Bis(hydroxydiphenylmethyl)-1,4-dioxaspiro[5.4]decane

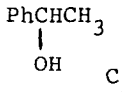
E.e.=100%[prepared from optically pure tartaric acid]

$[\alpha]_D$ -71.0 (*c* 1.06, $CHCl_3$)

Absolute configuration: *R,R*

F. Toda, S. Matsuda, K. Tanaka

Tetrahedron: Asymmetry **1991**, *2*, 983



$C_8H_{10}O$

1-Phenylethanol

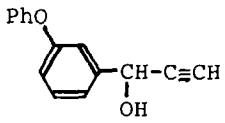
E.e.=98.6%[by HPLC of Chiralcel OB]

$[\alpha]_D$ -37.8 (*c* 0.36, MeOH)

Source of chirality: optical resolution

F. Toda, S. Matsuda, K. Tanaka

Tetrahedron: Asymmetry **1991**, *2*, 983



$C_{15}H_{12}O_2$

1-(*m*-Phenoxyphenyl)-2-propyn-1-ol

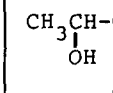
E.e.=100%[by HPLC of Chiralcel OJ]

$[\alpha]_D$ -23.9 (*c* 0.38, MeOH)

Source of chirality: optical resolution

F. Toda, S. Matsuda, K. Tanaka

Tetrahedron: Asymmetry **1991**, *2*, 983



C_3H_5ON

1-Cyanoethanol

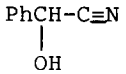
E.e.=100%[by ^1H NMR with *R,R-(-)-trans*-2,3-bis(hydroxydiphenylmethyl)-5,5-dimethyl-1,4-dioxacyclopentane]

$[\alpha]_D$ +44.1 (*c* 0.34, MeOH)

Source of chirality: optical resolution

F. Toda, S. Matsuda, K. Tanaka

Tetrahedron: Asymmetry **1991,** 2, 983



C_8H_7ON

1-Cyano-1-phenylmethanol

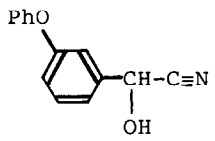
E.e.=100%[by ^1H NMR with *R,R-(-)-trans*-2,3-bis(hydroxydiphenylmethyl)-5,5-dimethyl-1,4-dioxacyclopentane]

$[\alpha]_D$ +33.7 (*c* 0.43, MeOH)

Source of chirality: optical resolution

F. Toda, S. Matsuda, K. Tanaka

Tetrahedron: Asymmetry **1991,** 2, 983



$C_{14}H_{11}O_2N$

1-Cyano-1-(*m*-phenoxyphenyl)methanol

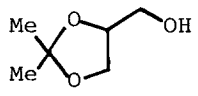
E.e.=72.5[by ^1H NMR with *R,R-(-)-trans*-2,3-bis(hydroxydiphenylmethyl)-5,5-dimethyl-1,4-dioxacyclopentane]

$[\alpha]_D$ -12.0 (*c* 1.0, benzene)

Source of chirality: optical resolution

F. Toda, S. Matsuda, K. Tanaka

Tetrahedron: Asymmetry **1991,** 2, 983



$C_6H_{12}O_3$

2-Hydroxymethyl-5,5-dimethyl-1,2-dioxacyclopentane

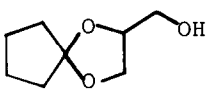
E.e.=100%[by comparison of the $[\alpha]_D$ value with that reported]

$[\alpha]_D$ +11.39 (*c* 1.03, MeOH)

Source of chirality: optical resolution

F. Toda, S. Matsuda, K. Tanaka

Tetrahedron: Asymmetry **1991,** 2, 983



$C_8H_{14}O_3$

2-Hydroxymethyl-1,4-dioxaspiro-[4.4]nonane

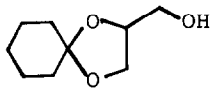
E.e.=100%[by comparison of the $[\alpha]_D$ value with that reported]

$[\alpha]_D$ +1.52 (*c* 1.18, MeOH)

Source of chirality: optical resolution

F. Toda, S. Matsuda, K. Tanaka

Tetrahedron: Asymmetry **1991,** 2, 983



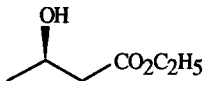
$C_9H_{16}O_3$

2-Hydroxymethyl-1,4-dioxaspiro-[5.4]decane

E.e.=100%[by comparison of the $[\alpha]_D$ value with that reported]
$[\alpha]_D$ +7.65 (*c* 0.81, MeOH)
Source of chirality: optical resolution

D.Buisson, R.Azerad, C.Sanner and M.Larchevêque

Tetrahedron: Asymmetry **1991,** 2, 987

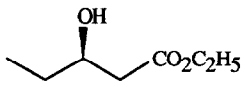


$C_6H_{12}O_3$
Ethyl 3(R)-hydroxybutanoate

E.e.= 99% by GLC as (S)-O-acetyllactyl ester
$[\alpha]_D^{20}$= –18.5 (neat)
Source of chirality: enantioselective reduction of the corresponding ketoester by *Geotrichum candidum*
Absolute configuration: R (assigned by comparison of the sign of the specific rotation)

D.Buisson, R.Azerad, C.Sanner and M.Larchevêque

Tetrahedron: Asymmetry **1991,** 2, 987

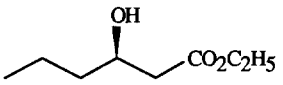


$C_7H_{14}O_3$
Ethyl 3(R)-hydroxypentanoate

E.e.= 99% by GLC as (S)-O-acetyllactyl ester
$[\alpha]_D^{20}$= –15.4 (neat); $[\alpha]_D^{20}$= –32.3 (c 2.25, $CHCl_3$)
Source of chirality: enantioselective reduction of the corresponding ketoester by *Geotrichum candidum*
Absolute configuration: R (assigned by comparison of the sign of the specific rotation)

D.Buisson, R.Azerad, C.Sanner and M.Larchevêque

Tetrahedron: Asymmetry **1991,** 2, 987

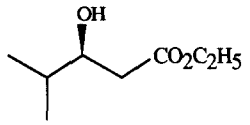


$C_8H_{16}O_3$
Ethyl 3(R)-hydroxyhexanoate

E.e.= 99% by GLC as (S)-O-acetyllactyl ester
$[\alpha]_D^{20}$= –23.6 (c 1.5, $CHCl_3$)
Source of chirality: enantioselective reduction of the corresponding ketoester by *Geotrichum candidum*
Absolute configuration: R (assigned by comparison of the sign of the specific rotation after conversion to hydroxyacid)

Tetrahedron: Asymmetry **1991,** 2, 987

D.Buisson, R.Azerad, C.Sanner and M.Larchevêque

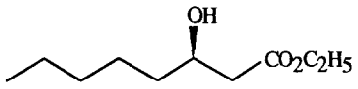


$C_8H_{16}O_3$
Ethyl 3(S)-hydroxy-4-methylpentanoate

E.e.= 94% by GLC as (S)-O-acetyllactyl ester
$[\alpha]_D^{20}$= –33 (c 1.6, $CHCl_3$)
Source of chirality: enantioselective reduction of the corresponding ketoester by *Geotrichum candidum*
Absolute configuration: S (assigned by comparison of the sign of the specific rotation after conversion to hydroxyacid)

Tetrahedron: Asymmetry **1991,** 2, 987

D.Buisson, R.Azerad, C.Sanner and M.Larchevêque

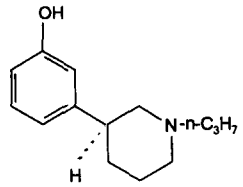


$C_{10}H_{20}O_3$
Ethyl 3(R)-hydroxyoctanoate

E.e.= 90% by GLC as (S)-O-acetyllactyl ester
$[\alpha]_D^{20}$= –17 (c 2, $CHCl_3$)
Source of chirality: enantioselective reduction of the corresponding ketoester by *Geotrichum candidum*
Absolute configuration: R (assigned by comparison of the sign of the specific rotation with analogous known hydroxyesters)

Ho Law, Gérard A. Leclerc, John.L. Neumeyer

Tetrahedron: Asymmetry **1991,** 2, 989



$C_{14}H_{21}NO$, HCl
S-(-)-3-(3-Hydroxyphenyl)-N-(1-propyl)-piperidine, hydrochloride

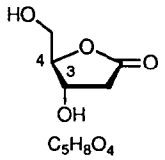
E.e > 99% (by optical rotation)

$[\alpha]_D^{20}$ = - 7.4 (c 2.2, MeOH)

Source of chirality : resolution

Tetrahedron: Asymmetry **1991,** 2, 993

Koichi Mikami, Masahiro Terada, and Takeshi Nakai

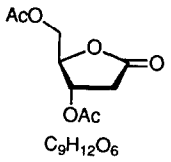


2-Deoxy-D-*erythro*-pentono-1,4-lactone

E.e. = > 98%
$[a]_D^{25}$ = +6.8 (c 1.04, H_2O)
Source of chirality: D-mannitol as starting material
Absolute configuration: 3*S*, 4*R*

Tetrahedron: Asymmetry **1991,** 2, 993

Koichi Mikami, Masahiro Terada, and Takeshi Nakai



$C_9H_{12}O_6$

E.e. = > 98%

$[a]_D^{20}$ = -5.3 (c 1.20, EtOH)

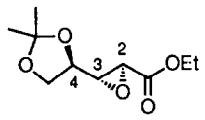
Source of chirality: D-mannitol as starting material

Absolute configuration: 3*S*, 4*R*

2-Deoxy-3,5-*O*-diacetyl-D-*erythro*-pentono-1,4-lactone

Tetrahedron: Asymmetry **1991,** 2, 993

Koichi Mikami, Masahiro Terada, and Takeshi Nakai



$C_{10}H_{16}O_5$

E.e. = > 98%

$[a]_D^{21}$ = +34.6 (c 1.19, CH_2Cl_2)

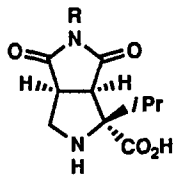
Source of chirality: D-mannitol as starting material

Absolute configuration: 2*S*, 3*R*, 4*R*

Ethyl 4,5-dihydroxy-2,3-epoxy-4,5-*O*-isopropylidenepentanoate

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

Tetrahedron: Asymmetry **1991,** 2, 997



R = Ph : $C_{16}H_{18}N_2O_4$ $[\alpha]^D_{20}$ = +19.6 (c 0.75, 1M HCl)

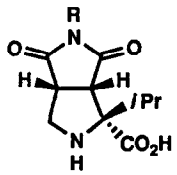
Source of chirality *N*-t-Boc-L-Valine

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

2(*R*),3(*R*),4(*S*) 2–isopropyl–3,4–(*N*–phenyldicarboximido)pyrrolidine–2–carboxylic acid

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

Tetrahedron: Asymmetry **1991,** 2, 997



R = Me : $C_{11}H_{16}N_2O_4$ $[\alpha]^D_{20}$ = +15.3 (c 0.75, 1M HCl)

R = Ph : $C_{16}H_{18}N_2O_4$ $[\alpha]^D_{20}$ = –21.3 (c 0.78, 1M HCl)

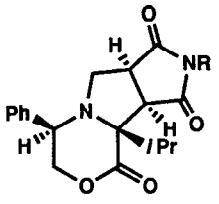
Source of chirality *N*-t-Boc-L-Valine

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

2(*R*),3(*S*),4(*R*) 2–isopropyl–3,4–(*N*–phenyl (or methyl) dicarboximido)pyrrolidine–2–carboxylic acid

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

Tetrahedron: Asymmetry **1991,** *2*, 997



R = Ph : $C_{24}H_{24}N_2O_4$ $[\alpha]^D_{20} = -1.08$ (c 1.0, $CHCl_3$)

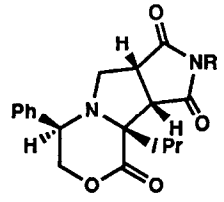
Source of chirality *N*-t-Boc-L-Valine

Absolute configuration : 3(*R*), 5(*R*), 7(*R*), 8(*S*)

N–phenyl 2(*R*),6(*R*),7(*R*),8(*S*) 6–isopropyl–2–phenyl–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, 997



R = Me : $C_{19}H_{22}N_2O_4$ $[\alpha]^D_{20} = +51.9$ (c 0.78, $CHCl_3$)

R = Ph : $C_{24}H_{24}N_2O_4$ $[\alpha]^D_{20} = -42.8$ (c 1.3, $CHCl_3$)

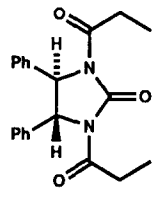
Source of chirality *N*-t-Boc-L-Valine

Absolute configuration : 3(*R*), 5(*R*), 7(*S*), 8(*R*)

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

S.G. Davies and A.A. Mortlock

Tetrahedron: Asymmetry **1991,** *2*, 1001



$C_{21}H_{22}N_2O_3$

E.e. = >99% [by nmr with (+)-2,2,2-trifluoro-1-(9-anthryl)ethanol]
$[\alpha]_D^{20} = -101.5$ (c 1.0, $CHCl_3$)

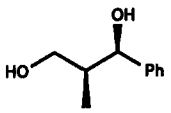
Source of chirality: (1R, 2R)-1,2-diphenyl-1,2-diaminoethane

Absolute configuration 1R, 2R

1,3-Dipropionyl-*trans*-4,5-diphenylimidazolidin-2-one

S.G. Davies and A.A. Mortlock

Tetrahedron: Asymmetry **1991,** 2, 1001



$C_{10}H_{14}O_2$

E.e. = >98% [by nmr with (+)-2,2,2-trifluoro-1-(9-anthryl)ethanol]
$[\alpha]_D^{20} = -53$ (c 0.57, $CHCl_3$)

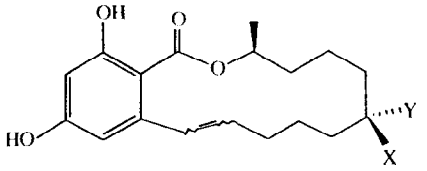
Source of chirality: Asymmetric aldol reaction

Absolute configuration 1R, 2S

1-Phenyl-2-methylpropane-1,3-diol

M. Gelo, Z. Raza, V. Šunjić, J. Guo, G. Snatzke

Tetrahedron: Asymmetry **1991,** 2, 1005

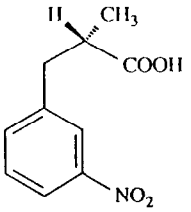


1 X,Y= O (3*S*, trans)
2 X,Y= H,OH (3*S*,7*S*, trans)
3 X,Y= HO,H (3*S*,7*R*, trans)
4 X,Y= H,OAc (3*S*,7*R*, trans)
5 X,Y= AcO, H (3*S*,7*S*, trans)
6 X,Y= O (3*S*, cis)
7 X,Y= H,OH (3*S*,7*S*, cis)
8 X,Y= HO,H (3*S*,7*R*, cis)

Compound	CD [nm] (Δε)/ in MeCN
1.	308 (-2.8), 271 (-18.4), 232 (+22.9), 193 (-30)
2.	311 (-2.1), 270 (-17.0), 232 (+24.5), 193 (-28)
3.	314 (+1.7), 265 (-4.0), 242 (-6.6), 197 (+8.4)
4.	314 (-3.4), 270 (-24.1), 229 (+28.6), 195 (-32)
5.	314 (+1.6), 275 ((-3.3), 267 (-3.4), 242 (-5.0),
6.	309 (-2.6), 269 (-15.9), 225 (+22.4), 195 (-24.2)
7.	309 (-0.85), 268 (-4.9), 225 (+6.8), 196 (-7.6)
8.	310 (-0.24), 303 (-0.26), 267 (-1.58), 224 (+2.75)

M.Colombo, M.De Amici, C.De Micheli, D.Pitrè, G.Carrea, S.Riva

Tetrahedron: Asymmetry **1991,** 2, 1021



E.e. = 85% [by chiral HPLC of its amino methyl ester]

$[\alpha]_D^{25}$ +25.46 (c 0.978, $CHCl_3$)

Source of chirality: Lipase PS-catalyzed hydrolysis

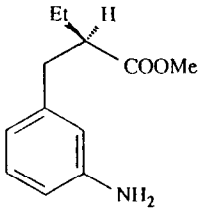
Absolute configuration: S

$C_{10}H_{11}NO_4$, mp 84-84.5°C

2-Methyl-3-(3-nitrophenyl)propionic acid

M.Colombo, M.De Amici, C.De Micheli, D.Pitrè, G.Carrea, S.Riva

Tetrahedron: Asymmetry **1991,** 2, 1021



E.e. = >99% [by HPLC with chiral stationary phase column, Chiralcel OD]

$[\alpha]_D^{20}$ -38.10 (c 0.908, $CHCl_3$)

Source of chirality: Chymotrypsin-catalyzed hydrolysis

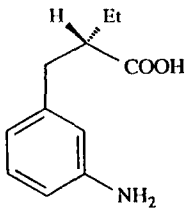
Absolute configuration: R

$C_{12}H_{17}NO_2$

Methyl 2-ethyl-3-(3-aminophenyl)propanoate

M.Colombo, M.De Amici, C.De Micheli, D.Pitrè, G.Carrea, S.Riva

Tetrahedron: Asymmetry **1991,** 2, 1021



E.e. = 94% [by chiral HPLC of its methyl ester]

$[\alpha]_D^{25}$ +29.93 (c 0.742, $CHCl_3$)

Source of chirality: Chymotrypsin-catalyzed hydrolysis

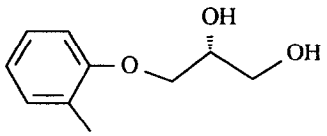
Absolute configuration: S

$C_{11}H_{15}NO_2$

2-Ethyl-3-(3-aminophenyl)propionic acid

F.Theil, S.Ballschuh, A. Kunath, and H. Schick

Tetrahedron: Asymmetry **1991,** 2, 1031



$C_{10}H_{14}O_3$

3-(2-Methylphenoxy)propane-1,2-diol

E.e. > 99 % [by HPLC on cellulose tris(3,5-dimethylphenylcarbamate)]

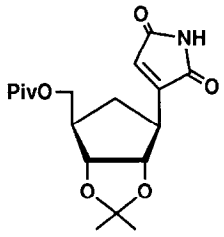
$[\alpha]_D^{20}$ = +19.8 [c 0.9, hexane - 2-propanol]

Source of chirality: Resolution by lipase-catalyzed acetylation

Absolute configuration: R (assigned by CD)

T. Takahashi, H. Kotsubo and T. Koizumi

Tetrahedron: Asymmetry **1991,** 2, 1035



$C_{18}H_{25}NO_6$

3-[2,3-(Isopropylidenedioxy)-4-(pivaloxymethyl)cyclopentyl]maleimide

E.e. > 96% (by ^{1}H NMR and HPLC of the *endo* cycloadduct)

$[\alpha]_D^{25}$ = -2.5 (c 0.79, $CHCl_3$)

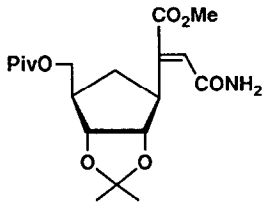
mp 118-120 °C

Source of chirality: asymm. synth. (Diels-Alder reaction)

Absolute configuration 1S, 2S, 3R, 4R

T. Takahashi, H. Kotsubo and T. Koizumi

Tetrahedron: Asymmetry **1991,** 2, 1035



$C_{19}H_{29}NO_7$

3-[2,3-(Isopropylidenedioxy)-4-(pivaloxymethyl)cyclopentyl]-*Z*-3-methoxycarbonylacrylamide

E.e. > 96% (by ^{1}H NMR and HPLC of the *endo* cycloadduct)

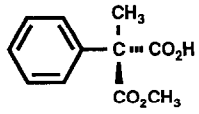
$[\alpha]_D^{26}$ = -3.0 (c 0.30, $CHCl_3$)

Source of chirality: asymm. synth. (Diels-Alder reaction)

Absolute configuration 1S, 2S, 3R, 4R

E. J. Toone and J. B. Jones

Tetrahedron: Asymmetry **1991,** 2, 1041



$C_{11}H_{12}O_4$

methyl hydrogen (+)-(R)-2-methyl-2-phenylmalonate

E.e. = 81% (by NMR with (+)-1-methylbenzylamine)

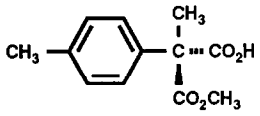
$[\alpha]_D^{25}$ = +6.8 (c 3.1, $CHCl_3$)

Source of chirality: Stereoselective enzymic hydrolysis

Absolute configuration: 2*R*

E. J. Toone and J. B. Jones

Tetrahedron: Asymmetry **1991,** 2, 1041



$C_{12}H_{14}O_4$

methyl hydrogen (+)-(R)-2-methyl-2-(4-methylpheny)lmalonate

E.e. = 82% (by NMR with (+)-1-methylbenzylamine)

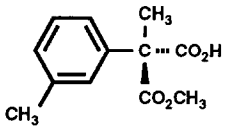
$[\alpha]_D^{25}$ = +4.5 (c 17.5, $CHCl_3$)

Source of chirality: Stereoselective enzymic hydrolysis

Absolute configuration: 2*R*

E. J. Toone and J. B. Jones

Tetrahedron: Asymmetry **1991,** 2, 1041



$C_{12}H_{14}O_4$

methyl hydrogen (+)-(R)-2-methyl-2-(-3-methylphenyl)malonate

E.e. = 92% (by NMR with (+)-1-methylbenzylamine)

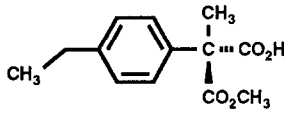
$[\alpha]_D^{25}$ = +2.97 (c 17, $CHCl_3$)

Source of chirality: Stereoselective enzymic hydrolysis

Absolute configuration: 2*R*

E. J. Toone and J. B. Jones

Tetrahedron: Asymmetry **1991,** 2, 1041



$C_{13}H_{16}O_4$

methyl hydrogen (+)-(R)-2-methyl-2-(4-ethylpheny)lmalonate

E.e. = 78% (by NMR with (+)-1-methylbenzylamine)

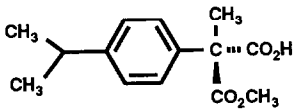
$[\alpha]_D^{25}$ = +3.5 (c 14.5, $CHCl_3$)

Source of chirality: Stereoselective enzymic hydrolysis

Absolute configuration: 2*R*

E. J. Toone and J. B. Jones

Tetrahedron: Asymmetry **1991,** 2, 1041



$C_{12}H_{14}O_4$

methyl hydrogen (+)-(R)-2-methyl-2-(4-isopropylphenyl)malonate

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

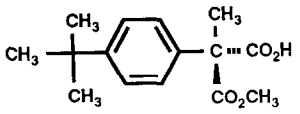
$[\alpha]_D^{25}$ = +7.43 (c 17, $CHCl_3$)

Source of chirality: Stereoselective enzymic hydrolysis

Absolute configuration: 2*R*

E. J. Toone and J. B. Jones

Tetrahedron: Asymmetry **1991,** 2, 1041



$C_{13}H_{16}O_4$

methyl hydrogen (+)-(R)-2-methyl-2-(4-t-butylpheny)lmalonate

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

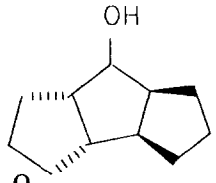
$[\alpha]_D^{25}$ = +2.4 (c 22, $CHCl_3$)

Source of chirality: Stereoselective enzymic hydrolysis

Absolute configuration: 2*R*

J.M. McIntosh and K.C. Cassidy

Tetrahedron: Asymmetry **1991,** 2, 1053



e.e. = 91% by ^1H NMR with (1S)-(-)-camphanic acid

$[\alpha]_D^{25}$ = +153 (c=1.03, MeOH)

Source of Chirality: asymm synth.
Absolute configuration: 1S,3S,7S,8S

$C_{11}H_{18}O$
cis,anti,cis-tricyclo[6.3.0.0^{3,7}]undecan-2-ol
Chemical Abstracts Name: 3aα,3bβ,6aβ,7aα-decahydro-7H-cyclopenta[a]pentalen-7-ol

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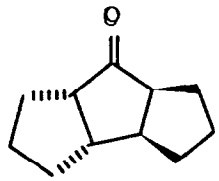
Tetrahedron: Asymmetry **1991,** 2, 1053



e.e. = 91% correlation with corresponding alcohol

$[\alpha]_D^{25}$= +166 (c=1.20, MeOH)

Source of Chirality: asymm synth.
Absolute configuration: 1S,3S,7S,8S

$C_{11}H_{16}O$
cis,anti,cis-tricyclo[6.3.0.0^{3,7}]undecan-2-one
Chem. Abs. Nomenclature 3aα,3bβ,6aβ,7aα-decahydro-7H-cyclopenta[a]pentalen-7-one

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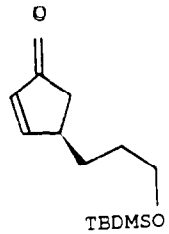
J.M. McIntosh and K.C. Cassidy

Tetrahedron: Asymmetry **1991,** 2, 1053



e.e. = 91% by extraoplation from final synthetic product)

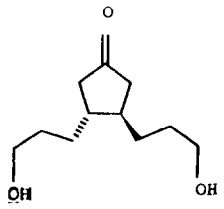
$[\alpha]_D^{25}$ = +39.6 (c = 0.9, MeOH)

Source of Chirality: asymm synth.
Absolute configuration: 4S

$C_{14}H_{26}O_2Si$
4-(3-*tert*.butyl-dimethylsiloxypropyl)-2-cyclopenten-1-one

J.M. McIntosh and K.C. Cassidy

Tetrahedron: Asymmetry **1991,** 2, 1053



e.e. = 91% (extrapolation from final synthetic product)

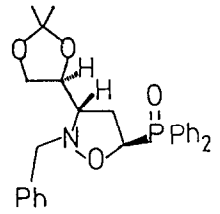
$[\alpha]_D^{25}$ = -90.0 (c = 0.58, MeOH)

Source of Chirality: asymm synth.
Absolute configuration: 3S, 4S

$C_{11}H_{20}O_3$
3,4-bis(3-hydroxypropyl)cyclopentanone

Alberto Brandi, Stefano Cicchi, Andrea Goti and K. M. Pietrusiewicz

Tetrahedron: Asymmetry **1991,** 2, 1063

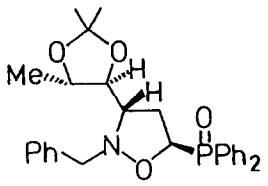


$[\alpha]_D^{25}$ = +11.6 (c 0.39, $CHCl_3$)
Source of chirality: 1,2:5.6-Di-O-isopropylidene-D-mannitol and asymmetric 1,3-dipolar cycloaddition
Absolute configuration: 3S,5R,4'S
^{31}P NMR: δ 27.30 ppm.

$C_{27}H_{30}NO_4P$
2-Benzyl-5-diphenylphosphinyl-3-(2,2-dimethyl-1,3-dioxolan-4-yl)isoxazolidine

Alberto Brandi, Stefano Cicchi, Andrea Goti and K. M. Pietrusiewicz

Tetrahedron: Asymmetry **1991,** 2, 1063

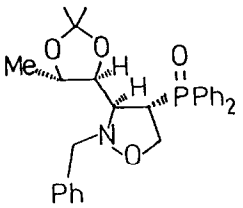


$[\alpha]_D^{25}$ = +13.4 (c 0.65, $CHCl_3$)
Source of chirality: Methyl (2R,3S)-2,3-O-isopropylidene- 2,3-dihydroxybutyrate and asymmetric 1,3-dipolar cycloaddition
Absolute configuration: 3S,5R,4'S,5'S
^{31}P NMR: δ 27.56 ppm.

$C_{28}H_{32}NO_4P$
2-Benzyl-5-diphenylphosphinyl-3-(2,2,5)-trimethyl-1,3-dioxolan-4-yl)isoxazolidine

Alberto Brandi, Stefano Cicchi, Andrea Goti and K. M. Pietrusiewicz

Tetrahedron: Asymmetry **1991,** 2, 1063

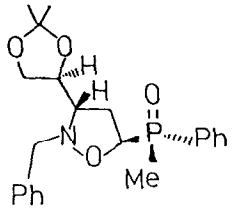


$[\alpha]_D^{25}$ = -24.1 (c 0.44, $CHCl_3$)
Source of chirality: Methyl (2R,3S)-2,3-O-isopropylidene-2,3-dihydroxybutyrate and asymmetric 1,3-dipolar cycloaddition
Absolute configuration: 3S,4S,4'S,5'S
^{31}P NMR: δ 30.27 ppm.

$C_{28}H_{32}NO_4P$
2-Benzyl-4-diphenylphosphinyl-3-(2,2,5-trimethyl-1,3-dioxolan-4-yl)isoxazolidine

Alberto Brandi, Stefano Cicchi, Andrea Goti and K. M. Pietrusiewicz

Tetrahedron: Asymmetry **1991,** 2, 1063



$[\alpha]_D^{25}$ = -62.1 (c 1.91, $CHCl_3$)
Source of chirality: 1,2:5.6-Di-O-isopropylidene-D- mannitol, (–)-S-methylphenylvinylphosphine oxide and asymmetric 1,3-dipolar cycloaddition
Absolute configuration: 3S,5R,4'S,R_P
^{31}P NMR: δ 31.63 ppm.

$C_{22}H_{28}NO_4P$

2-Benzyl-5-methylphenylphosphinyl-3-(2,2-dimethyl-1,3-dioxolan-4-yl)isoxazolidine

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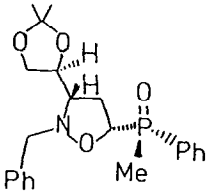
Alberto Brandi, Stefano Cicchi, Andrea Goti and K. M. Pietrusiewicz

Tetrahedron: Asymmetry **1991,** 2, 1063



$[\alpha]_D^{25}$ = +152.1 (c 1.44, $CHCl_3$)
Source of chirality: 1,2:5.6-Di-O-isopropylidene-D- mannitol and asymmetric 1,3-dipolar cycloaddition
Absolute configuration: 3S,5S,4'S,R_P
^{31}P NMR: δ 37.34 ppm.

$C_{22}H_{28}NO_4P$

2-Benzyl-5-methylphenylphosphinyl-3-(2,2-dimethyl-1,3- dioxolan-4-yl)isoxazolidine

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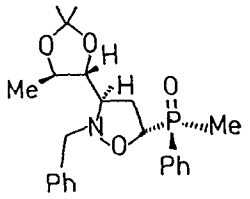
Alberto Brandi, Stefano Cicchi, Andrea Goti and K. M. Pietrusiewicz

Tetrahedron: Asymmetry **1991,** 2, 1063



$[\alpha]_D^{25}$ = +50.4 (c 4.75, $CHCl_3$)
Source of chirality: Methyl (2S,3R)-2,3-O- isopropylidene-2,3-dihydroxybutyrate, (–)-S- methylphenylvinylphosphine oxide and asymmetric 1,3-dipolar cycloaddition
Absolute configuration: 3R,5S,4'R,5'R,S_P
^{31}P NMR: δ 31.89 ppm.

$C_{23}H_{30}NO_4P$

2-Benzyl-5-methylphenylphosphinyl-3-(2,2,5-trimethyl-1,3-dioxolan-4-yl) isoxazolidine

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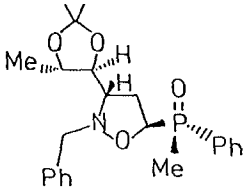
Alberto Brandi, Stefano Cicchi, Andrea Goti and K. M. Pietrusiewicz

Tetrahedron: Asymmetry **1991,** 2, 1063



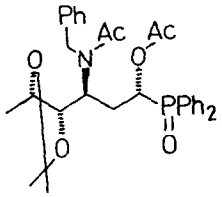
$[\alpha]_D^{25}$ = -52.6 (c 1.42, $CHCl_3$)
Source of chirality: Methyl (2R,3S)-2,3-O- isopropylidene-2,3-dihydroxybutyrate, (–)-S- methylphenylvinylphosphine oxide and asymmetric 1,3-dipolar cycloaddition
Absolute configuration: 3S,5R,4'S,5'S,R_P
^{31}P NMR: δ 31.86 ppm.

$C_{23}H_{30}NO_4P$

2-Benzyl-5-methylphenylphosphinyl-3-(2,2,5- trimethyl-1,3-dioxolan-4-yl)isoxazolidine

Alberto Brandi, Stefano Cicchi, Andrea Goti and K. M. Pietrusiewicz

Tetrahedron: Asymmetry **1991,** 2, 1063



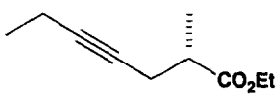
$C_{32}H_{38}NO_6P$

1-Acetoxy-3-(N-benzyl)acetamido-4,5-(O- isopropylidene)dihydroxy-1-diphenylphosphinylhexane

$[\alpha]_D^{25}$ = -42.1 (c 0.51, $CHCl_3$)
Source of chirality: synthetic
Absolute configuration: 1R,3S,4S,5S
^{31}P NMR: δ 31.24 ppm.

G.J. Bodwell and S.G. Davies

Tetrahedron: Asymmetry **1991,** 2, 1075



$C_{10}H_{16}O_2$

Ethyl 2-methylhept-4-ynoate

e.e. 100%
$[\alpha]_D^{20}$ +8.4 (c = 1.0, $CHCl_3$)
Absolute configuration: S
Source of chirality: asymmetric synthesis