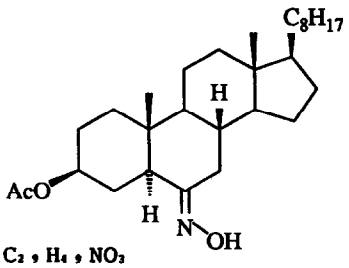
G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



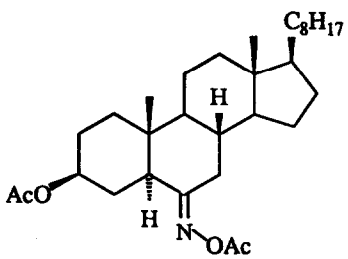
CD [$\Delta\epsilon(\lambda_{max})$]= -5.40(214), +1.7(198)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR and/or CD.

$C_{29}H_{45}NO_3$
(6*E*)-6-Hydroxyimino-5α-cholestan-3β-ol acetate (1)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



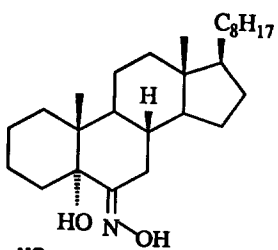
CD [$\Delta\epsilon(\lambda_{max})$]= -8.11 (212), +7.9 (195)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{31}H_{51}NO_3$
(6*E*)-6-Acetoxyimino-5α-cholestan-3β-ol acetate (2)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



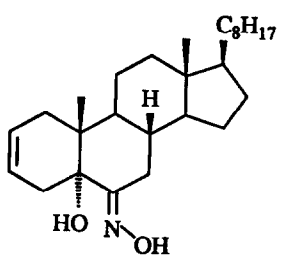
CD [$\Delta\epsilon(\lambda_{max})$]= -7.58(216)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{27}H_{47}NO_2$
(6*E*)-6-Hydroxyimino-5α-cholestan-5-ol (3)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



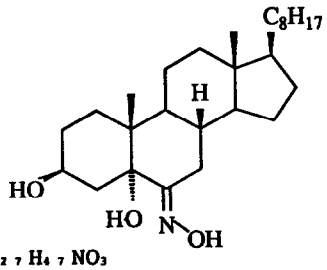
CD [$\Delta\epsilon(\lambda_{max})$]= -8.59(217)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{27}H_{45}NO_2$
(6*E*)-5-Hydroxy-6-hydroxyimino-5α-cholest-2-ene (4)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990,**



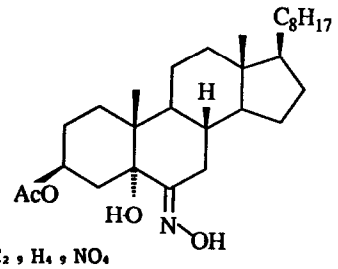
CD [$\Delta\epsilon(\lambda_{max})$]= -8.26(216), +2.6(192)
(MeCN)

Source of chirality: from natural cholester
Oxim-E/Z configuration from NMR or CD.

$C_{27}H_{47}NO_3$
(6*E*)-6-Hydroxyimino-5α-cholestane-3β,5-diol (5)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990,**



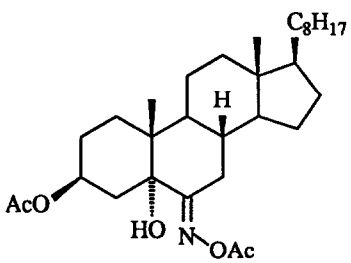
CD [$\Delta\epsilon(\lambda_{max})$]= -6.78(219)
(MeCN)

Source of chirality: from natural cholester
Oxim-E/Z configuration from NMR or CD.

$C_{29}H_{49}NO_4$
(6*E*)-3β-Acetoxy-5-hydroxy-6-hydroxyimino-5α-cholestane (6)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990,**



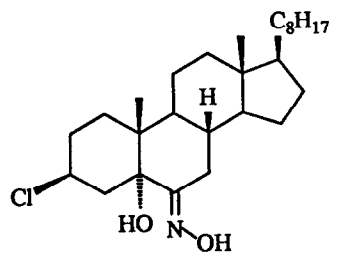
CD [$\Delta\epsilon(\lambda_{max})$]= -8.64(216), +4.1(196)
(MeCN)

Source of chirality: from natural cholester
Oxim-E/Z configuration from NMR or CD.

$C_{31}H_{51}NO_5$
(6*E*)-6-Acetoxyimino-5α-cholestane-3β,5-diol 3-acetate (7)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990,**



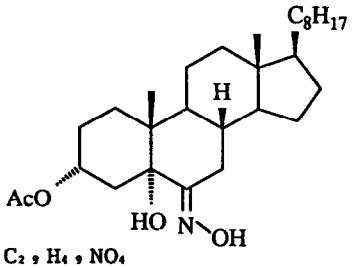
CD [$\Delta\epsilon(\lambda_{max})$]= -7.73(215), +3.4(190)
(MeCN)

Source of chirality: from natural cholester
Oxim-E/Z configuration from NMR or CD.

$C_{27}H_{46}ClNO_2$
(6*E*)-3β-Chloro-6-hydroxyimino-5α-cholestan-5-ol (8)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



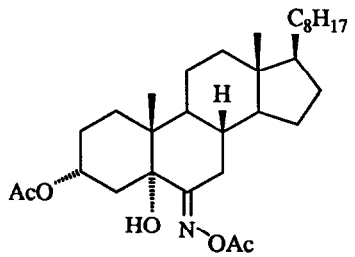
CD [$\Delta\epsilon(\lambda_{max})$]= -6.00(216)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{27}H_{45}NO_4$
(6*E*)-6-Hydroxyimino-5α-cholestane-3α,5-diol 3-acetate (9)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



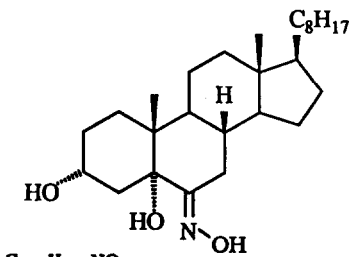
CD [$\Delta\epsilon(\lambda_{max})$]= -6.38(216), +5.8(196)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{29}H_{47}NO_5$
(6*E*)-6-Acetoxyimino-5α-cholestane-3α,5-diol 3 acetate (10)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



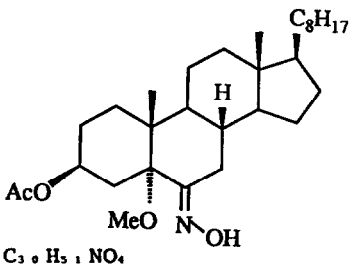
$[\alpha]_D$ = -37.4 (THF, c=1.1)
CD [$\Delta\epsilon(\lambda_{max})$]= -6.17(217), +3.1(195)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{27}H_{47}NO_3$
(6*E*)-6-Hydroxyimino-5α-cholestane-3α,5-diol (11)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



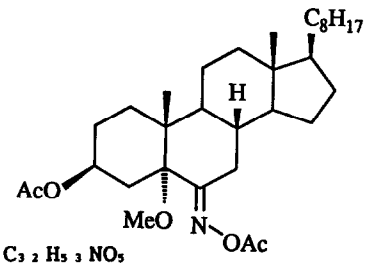
CD [$\Delta\epsilon(\lambda_{max})$]= -7.24(218), +4.3(195)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{30}H_{51}NO_4$
(6*E*)-6-Hydroxyimino-5-methoxy-5α-cholestan-3β-ol 3-acetate (12)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



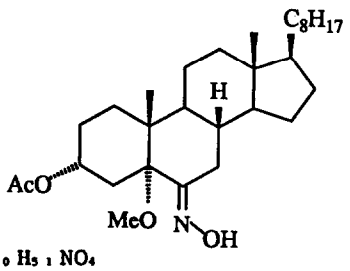
CD [$\Delta\epsilon(\lambda_{max})$]= -9.30(220), +8.0(197)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{32}H_{53}NO_5$
(6*E*)-6-Acetoxyimino-5-methoxy-5α-cholestan-3β-ol acetate (13)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



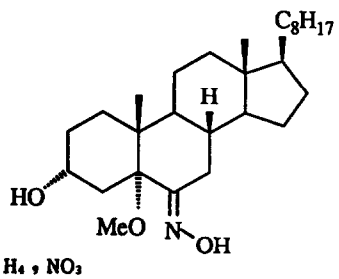
$[\alpha]_D$ = -42.6 ($CHCl_3$, c=0.5)
CD [$\Delta\epsilon(\lambda_{max})$]= -9.82(219), +12.1(195)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{30}H_{51}NO_4$
(6*E*)-6-Hydroxyimino-5-methoxy-5α-cholestan-3α-ol 3-acetate (14)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



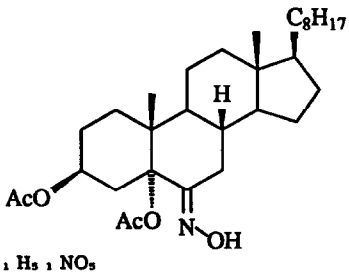
$[\alpha]_D$ = -22.0 ($CHCl_3$, c=0.4)
CD [$\Delta\epsilon(\lambda_{max})$]= -10.15(219), +12.9(196)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{28}H_{49}NO_3$
(6*E*)-6-Hydroxyimino-5-methoxy-5α-cholestan - 3α-ol (15)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



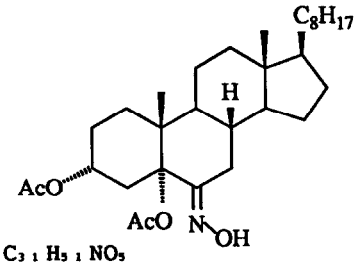
CD [$\Delta\epsilon(\lambda_{max})$]= -10.05(217), +4.1(195)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{31}H_{51}NO_5$
(6*E*)-6-Hydroxyimino-5α-cholestane-3β,5-diol 3,5-acetate (16)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



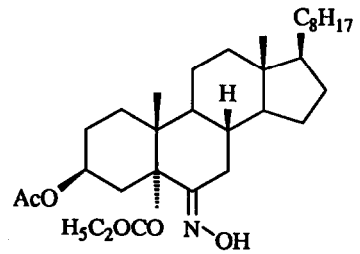
$[\alpha]_D$ = -66.2 ($CHCl_3$, c=0.4)
CD [$\Delta\epsilon(\lambda_{max})$]= -9.79(216), +7.9(194)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{31}H_{51}NO_5$
(6*E*)-6-Hydroxyimino-5α-cholestane-3α,5-diol 3,5-diacetate (17)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



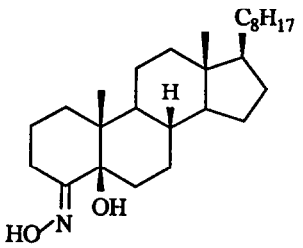
$[\alpha]_D$ = -58.3 ($CHCl_3$, c=0.6)
CD [$\Delta\epsilon(\lambda_{max})$]= -8.99(219), +6.5(195)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{32}H_{53}NO_5$
(6*E*)-6-Hydroxyimino-5α-cholestane-3β,5-diol 3-acetate 5-propionate (18)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



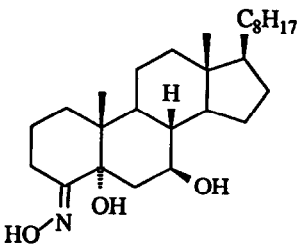
$[\alpha]_D$ = -31.8 (THF, c=0.84)
CD [$\Delta\epsilon(\lambda_{max})$]= -7.89(219),
(Dioxane)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{27}H_{47}NO_2$
(4*E*)-4-Hydroxyimino-5β-cholestan-5-ol (19)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



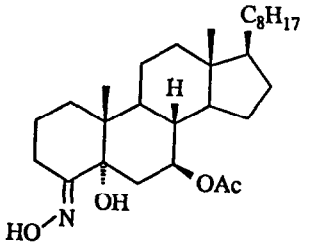
$[\alpha]_D$ = +140.9, (THF, c=0.9)
CD [$\Delta\epsilon(\lambda_{max})$]= +4.82(217), +2.8(196)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{27}H_{47}NO_3$
(4*E*)-4-Hydroxyimino-5α-cholestane-5,7β-diol (20)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



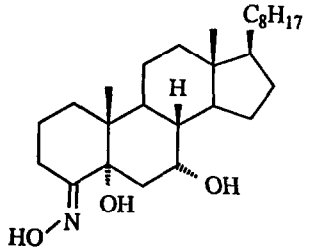
$[\alpha]_D$ = +134.4, ($CHCl_3$, c=0.5)
CD [$\Delta\epsilon(\lambda_{max})$]= +3.94(218), +5.5(188)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{29}H_{45}NO_4$
(4*E*)-4-Hydroxyimino-5α-cholestane-5,7β-diol 7-acetate (21)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



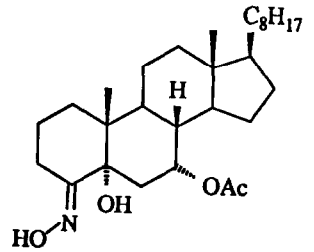
$[\alpha]_D$ = +93.0, ($CHCl_3$, c=0.6)
CD [$\Delta\epsilon(\lambda_{max})$]= +3.10(220), -1.0(200)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{27}H_{45}NO_3$
(4*E*)-4-Hydroxyimino-5α-cholestane-5,7α-diol (22)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



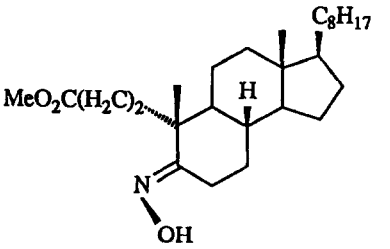
$[\alpha]_D$ = +107.9, ($CHCl_3$, c=0.8)
CD [$\Delta\epsilon(\lambda_{max})$]= +5.38(218), -0.7(196)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{29}H_{45}NO_4$
(4*E*)-4-Hydroxyimino-5α-cholestane-5,7α-diol 7-acetate (23)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



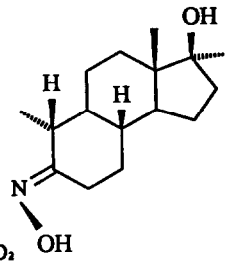
CD [$\Delta\epsilon(\lambda_{max})$]= +2.27(221), -8.9(197)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{28}H_{45}NO_3$
Methyl (5*E*)-4-nor-3,5-seco-5-hydroxyimino-cholestane-3-carboxylate (24)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



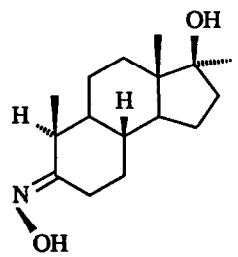
$[\alpha]_D$ = +56.3, (THF, c=1.2)
CD $[\Delta\epsilon(\lambda_{max})]$= +0.88(219), -5.0(198)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{16}H_{27}NO_2$
(5*E*)-5-Hydroxyimino-17α-methyl-des-A-10α-androstan-17β-ol (25)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



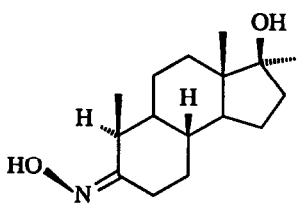
$[\alpha]_D$ = +39.2, (THF, c=0.7)
CD $[\Delta\epsilon(\lambda_{max})]$= +0.77(222), -5.9(197)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{16}H_{27}NO_2$
(5*E*)-5-Hydroxyimino-17α-methyl-des-A-androstan-17β-ol (26)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



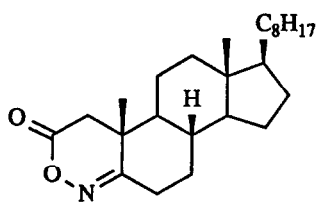
$[\alpha]_D$ = -13.9, (THF, c=1.2)
CD $[\Delta\epsilon(\lambda_{max})]$= -3.26(213)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{16}H_{27}NO_2$
(5*Z*)-5-Hydroxyimino-17α-methyl-des-A-androstan-17β-ol (27)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



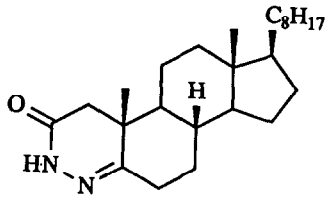
$[\alpha]_D$ = +65.0, ($CHCl_3$, c=0.8)
CD $[\Delta\epsilon(\lambda_{max})]$= +0.65(251), -24.99(216), +15.1(198)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{25}H_{41}NO_2$
4-Aza-3-oxacholest-4-en-2-one (28)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



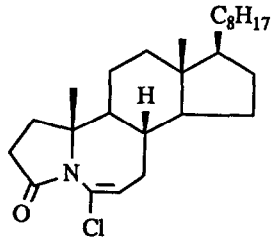
CD [$\Delta\epsilon(\lambda_{max})$]= -17.83(239), +36.8(212)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{27}H_{42}N_2O$
3,4-Bisazacholest-4-en-2-one (29)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



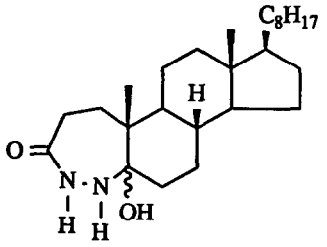
[α]$_D$ = +99.0, ($CHCl_3$, c=1)
CD [$\Delta\epsilon(\lambda_{max})$]= -2.54(247), +28.2(221)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{26}H_{42}ClNO$
6-Chloro-5-aza-A-nor-B-homocholest-6-en-3-one (31)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



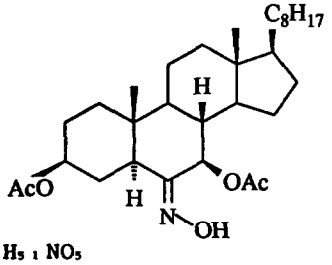
[α]$_D$ = +61.4, (THF, c=0.42)
CD [$\Delta\epsilon(\lambda_{max})$]= +0.08(297), -0.06(259), +2.9(230), -3.7(207)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{26}H_{46}N_2O_2$
5-Hydroxy-4,4a-bisaza-A-homo-5 ξ -cholestan-3-one (33)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



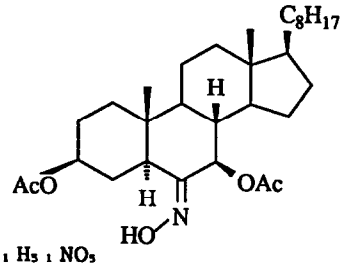
[α]$_D$ = +32.5, ($CHCl_3$, c=0.8)
CD [$\Delta\epsilon(\lambda_{max})$]= -5.23(222), +3.2(195)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{31}H_{51}NO_5$
(6*Z*)-6-Hydroxyimino-5α-cholestane-3β,7β-diol 3,7-diacetate (34)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



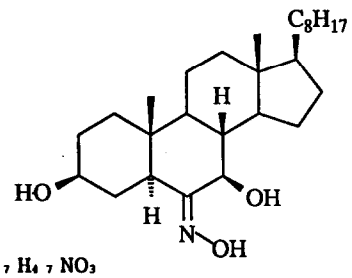
$[\alpha]_D$ = +87.6, ($CHCl_3$, c=1.1)
CD [$\Delta\epsilon(\lambda_{max})$]= +2.41(223), -5.3(194)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{31}H_{51}NO_5$
(6*E*)-6-Hydroxyimino-5α-cholestane-3β,7β-diol 3,7-diacetate (35)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



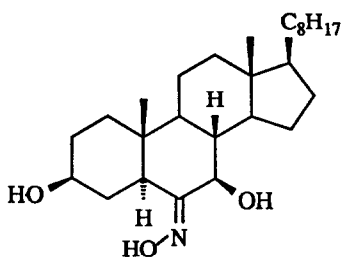
$[\alpha]_D$ = +18.2, ($CHCl_3$, c=1)
CD [$\Delta\epsilon(\lambda_{max})$]= -4.38(220)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{27}H_{47}NO_3$
(6*Z*)-6-Hydroxyimino-5α-cholestane-3β,7β-diol (36)

G.Snatzke, J.Frelek, and W.J.Szczepek

Tetrahedron: Asymmetry **1990**, *1*, 649



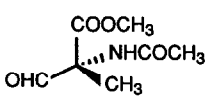
$[\alpha]_D$ = +90.7, ($CHCl_3$, c=0.8)
CD [$\Delta\epsilon(\lambda_{max})$]= +1.47(215), -4.4(193)
(MeCN)

Source of chirality: from natural cholesterol.
Oxim-E/Z configuration from NMR or CD.

$C_{27}H_{47}NO_3$
(6*E*)-6-Hydroxyimino-5α-cholestane-3β,7β-diol (37)

S. Gladiali and L. Pinna

Tetrahedron: Asymmetry **1990**, *1*, 693



E.e. = 59% (by GLC with chiral capillary column)
$[\alpha]_D^{25}$ = +20.1 (c 2, acetone)

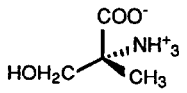
Source of chirality: asymmetric hydroformylation of methyl N-acetamidoacrylate

$C_7H_{11}NO_4$
Methyl 2-Formyl-N-acetylalaninate

Absolute configuration : R
(assigned by correlation of configuration)

S. Gladiali and L. Pinna

Tetrahedron: Asymmetry 1990



E.e. = 59% (optical rotation)

$[\alpha]_D^{25}$ = -3.1 (c 1, H_2O)

Source of chirality: reduction and hydrolysis of methyl 2-I
myl-N-acetylalaninate from asymmet
hydroformylation.

$C_4H_9NO_3$

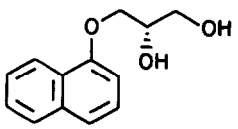
α–Methylserine

Absolute configuration : R

(assigned by correlation of configuration)

A V Rama Rao, M K Gurjar and S V **Joshi**

Tetrahedron: Asymmetry 1990



$C_{13}H_{14}O_3$

3-(1-Naphthyloxy)-1,2-propanediol

E.e. = 60% (Mosher ester)

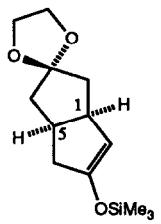
$[\alpha]_D^{26}$ = 4.01 (c 1.1, MeOH)

Source of Chirality: Asymmetric synth (Sh
asymmetric dihydroxylation).

Absolute configuration : S

J. Leonard,* J.D. Hewitt, D. Ouali, S.K. Rahman, S.J. Simpson and R. F. Newton

Tetrahedron: Asymmetry 1990



$C_{13}H_{22}O_3Si$

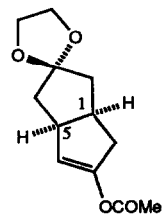
E.e. = 72% - determined by ^{1}H NMR chiral shift experiments on derivative **5** using (R)-(-)-TFAE.

Source of chirality: enantioselective deprotonation of meso ketone using chiral lithium amide base

Absolute configuration: 1R,5S

J. Leonard,* J.D. Hewitt, D. Ouali, S.K. Rahman, S.J. Simpson and R. F. Newton

Tetrahedron: Asymmetry 1990



$C_{12}H_{16}O_4$

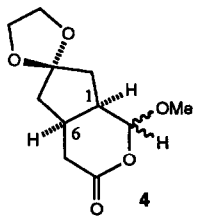
E.e. = 35% - determined by ^{1}H NMR chiral shift experiments on derivative **4** using (R)-(-)-TFAE.

Source of chirality: enantioselective deprotonation of meso ketone using chiral lithium amide base

Absolute configuration: 1R,5S

Tetrahedron: Asymmetry **1990**, *1*, 699

J. Leonard,* J.D. Hewitt, D. Ouali, S.K. Rahman, S.J. Simpson and R. F. Newton



4

$C_{11}H_{16}O_5$

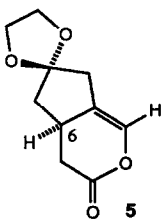
E.e. = 35% - determined by ^1H NMR chiral shift experiments using (R)-(-)-TFAE.

Source of chirality: enantioselective deprotonation of meso ketone using chiral lithium amide base

Absolute configuration: 1S,6S, 2RS(3:1)

Tetrahedron: Asymmetry **1990**, *1*, 699

J. Leonard,* J.D. Hewitt, D. Ouali, S.K. Rahman, S.J. Simpson and R. F. Newton



5

$C_{10}H_{12}O_4$

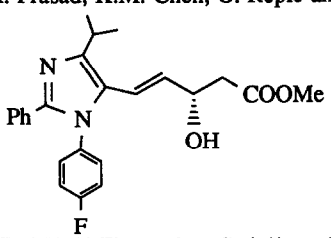
E.e. = 72% - determined by ^1H NMR chiral shift experiments using (R)-(-)-TFAE.

Source of chirality: enantioselective deprotonation of meso ketone using chiral lithium amide base

Absolute configuration: S

Tetrahedron: Asymmetry **1990**, *1*, 703

K. Prasad, K.M. Chen, O. Repic and G. E. Hardtmann



(*S*)-5-[1-(4-Fluorophenyl)-4-(1-methylethyl)-2-phenyl-1H-imidazol-5-yl-3-hydroxy-4-pentenoic acid, methyl ester

ee = >99% (by NMR with $Eu(hfc)_3$)

$[\alpha]_D$ +17(*c* 1 MeOH)

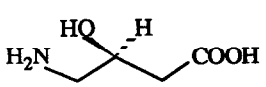
Source of chirality: *S*-mandelic acid

Absolute configuration: *S*

$C_{24}H_{25}FN_2O_3$, mp.166 °C

Tetrahedron: Asymmetry **1990**, *1*, 707

Y. Lu, C. Miet, N. Kunesch, and J. Poisson



(*S*)-4-Amino-3-hydroxybutanoic acid
(*S*)-GABOB

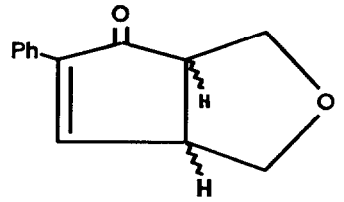
$[\alpha]_D^{20}$ = +20.6 (c=1.9, H_2O)

Source of chirality: Enzymatic Kinetic resolution

Absolute configuration : S

H. Brunner and A. Niedernhuber

Tetrahedron: Asymmetry **1990**, *1*, 711



E.e. = 100 %

$[\alpha]_D^{25}$ = +63.5 (c 0.46, benzene)

Source of chirality: asymmetric Khand–Pauson reaction with $(-)_{546}$–$Co_2(CO)_5(PhC_2H)$(GLYPHOS),

GLYPHOS = (R)–(+)–2,3–O–isopropylidenglycerol–1–diphenylphosphane, and enrichment by fractional crystallization

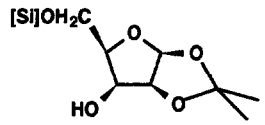
Absolute configuration: unknown

$C_{13}H_{12}O_2$

3–Oxabicyclo[3.3.0]oct–7–en–7–phenyl–6–one

R.P. Elliott, G.W.J.Fleet, K.Vogt, F.X.Wilson, Y. Wang, D.R.Witty, R.Storer, P.L.Myers, C.J.Wallis

Tetrahedron: Asymmetry **1990**, *1*, 715



E.e. = 100%

$[\alpha]_D^{20}$ = +7.9 (c, 1.2 in chloroform)

Source of chirality: D-arabinose as starting material

[Si]=Bu^tPh_2Si

$C_{24}H_{32}O_5Si$

5-O-*tert*-butyldiphenylsilyl-1,2-O-isopropylidene-D-lyxofuranose

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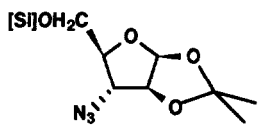
R.P. Elliott, G.W.J.Fleet, K.Vogt, F.X.Wilson, Y. Wang, D.R.Witty, R.Storer, P.L.Myers, C.J.Wallis

Tetrahedron: Asymmetry **1990**, *1*, 715



E.e. = 100%

$[\alpha]_D^{20}$ = +10.3 (c, 1.3 in chloroform)

Source of chirality: D-arabinose as starting material

[Si]=Bu^tPh_2Si

$C_{24}H_{31}N_3O_4Si$

3-azido-5-O-*tert*-butyldiphenylsilyl-3-deoxy-1,2-O-isopropylidene-D-arabinofuranose

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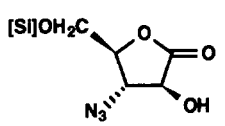
R.P. Elliott, G.W.J.Fleet, K.Vogt, F.X.Wilson, Y. Wang, D.R.Witty, R.Storer, P.L.Myers, C.J.Wallis

Tetrahedron: Asymmetry **1990**, *1*, 715



E.e. = 100%

$[\alpha]_D^{20}$ = +20.9 (c, 1.2 in chloroform)

Source of chirality: D-arabinose as starting material

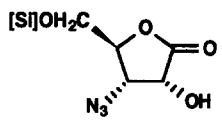
[Si]=Bu^tPh_2Si

$C_{21}H_{25}N_3O_4Si$

3-azido-5-O-*tert*-butyldiphenylsilyl-3-deoxy-D-arabinono-1,4-lactone

R.P. Elliott, G.W.J.Fleet, K.Vogt, F.X.Wilson, Y. Wang, D.R.Witty, R.Storer, P.L.Myers, C.J.Wallis

Tetrahedron: Asymmetry **1990**, *1*, 715



[Si]=Bu^{t}Ph$_2$Si

E.e. = 100%

$[\alpha]_D^{20}$ = +63.3 (c, 1.9 in chloroform)

Source of chirality: D-arabinose as starting material

$C_{21}H_{25}N_3O_4Si$
3-azido-5-O-*tert*-butyldiphenylsilyl-3-deoxy-D-ribono-1,4-lactone

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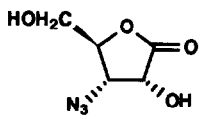
R.P. Elliott, G.W.J.Fleet, K.Vogt, F.X.Wilson, Y. Wang, D.R.Witty, R.Storer, P.L.Myers, C.J.Wallis

Tetrahedron: Asymmetry **1990**, *1*, 715



E.e. = 100%

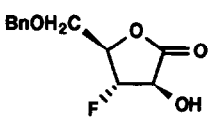
$[\alpha]_D^{20}$ = +156.7 (c, 1.54 in acetone)

Source of chirality: diacetone glucose as starting material

$C_5H_7N_3O_4$
3-azido-3-deoxy-D-ribono-1,4-lactone

R.P. Elliott, G.W.J.Fleet, K.Vogt, F.X.Wilson, Y. Wang, D.R.Witty, R.Storer, P.L.Myers, C.J.Wallis

Tetrahedron: Asymmetry **1990**, *1*, 715



E.e. = 100%

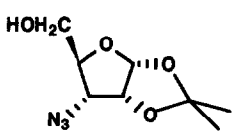
$[\alpha]_D^{20}$ = +8.0 (c, 0.85 in chloroform)

Source of chirality: D-arabinose as starting material

$C_{12}H_{13}FO_4$
5-O-benzyl-3-deoxy-3-fluoro-D-arabinono-1,4-lactone

R.P. Elliott, G.W.J.Fleet, K.Vogt, F.X.Wilson, Y. Wang, D.R.Witty, R.Storer, P.L.Myers, C.J.Wallis

Tetrahedron: Asymmetry **1990**, *1*, 715



E.e. = 100%

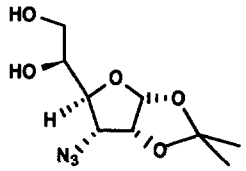
$[\alpha]_D^{20}$ = +130.4 (c, 0.97 in chloroform)

Source of chirality: diacetone glucose as starting material

$C_8H_{13}N_3O_4$
3-azido-3-deoxy-1,2-O-isopropylidene-D-ribofuranose

R.P. Elliott, G.W.J.Fleet, K.Vogt, F.X.Wilson, Y. Wang, D.R.Witty, R.Storer, P.L.Myers, C.J.Wallis

Tetrahedron: Asymmetry **1990,** *1*, 715



E.e. = 100%

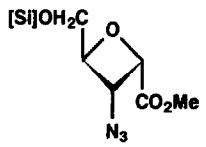
$[\alpha]_D^{20}$ = +76.0 (c, 1.02 in acetone)

Source of chirality: diacetone glucose as starting material

$C_9H_{15}N_3O_5$
3-azido-3-deoxy-1,2-O-isopropylidene-D-allofuranose

R.P. Elliott, G.W.J.Fleet, K.Vogt, F.X.Wilson, Y. Wang, D.R.Witty, R.Storer, P.L.Myers, C.J.Wallis

Tetrahedron: Asymmetry **1990,** *1*, 715



[Si]=Bu^{t}Ph$_2$Si

E.e. = 100%

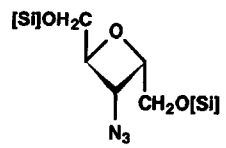
$[\alpha]_D^{20}$ = +35.4 (c, 1.25 in chloroform)

Source of chirality: diacetone glucose as starting material

$C_{22}H_{27}N_3O_4Si$
methyl 2,4-anhydro-3-azido-5-O-*tert*-butyldiphenylsilyl-3-deoxy-D-ribonate

R.P. Elliott, G.W.J.Fleet, K.Vogt, F.X.Wilson, Y. Wang, D.R.Witty, R.Storer, P.L.Myers, C.J.Wallis

Tetrahedron: Asymmetry **1990,** *1*, 715



[Si]=Bu^{t}Ph$_2$Si

E.e. = 100%

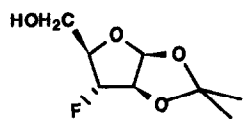
$[\alpha]_D^{20}$ = +8.6 (c, 1.45 in chloroform)

Source of chirality: diacetone glucose as starting material

$C_{37}H_{45}N_3O_3Si$
2,4-anhydro-3-azido-3-deoxy-1,5-di-O-*tert*-butyldiphenylsilyl-D-ribitol

R.P. Elliott, G.W.J.Fleet, K.Vogt, F.X.Wilson, Y. Wang, D.R.Witty, R.Storer, P.L.Myers, C.J.Wallis

Tetrahedron: Asymmetry **1990,** *1*, 715



E.e. = 100%

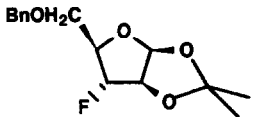
$[\alpha]_D^{20}$ = +18.1 (c, 0.95 in chloroform)

Source of chirality: D-arabinose as starting material

$C_8H_{13}FO_4$
3-deoxy-3-fluoro-1,2-O-isopropylidene-D-arabinofuranose

R.P. Elliott, G.W.J.Fleet, K.Vogt, F.X.Wilson, Y. Wang, D.R.Witty, R.Storer, P.L.Myers, C.J.Wallis

Tetrahedron: Asymmetry **1990**, *1*, 715



E.e. = 100%

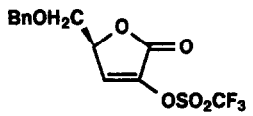
$[\alpha]_D^{20}$ = +3.1 (c, 1.5 in chloroform)

Source of chirality: D-arabinose as starting material

$C_{15}H_{19}FO_4$
5-O-benzyl-3-deoxy-3-fluoro-1,2-O-isopropylidene-D-arabinofuranose

R.P. Elliott, G.W.J.Fleet, K.Vogt, F.X.Wilson, Y. Wang, D.R.Witty, R.Storer, P.L.Myers, C.J.Wallis

Tetrahedron: Asymmetry **1990**, *1*, 715



E.e. = 100%

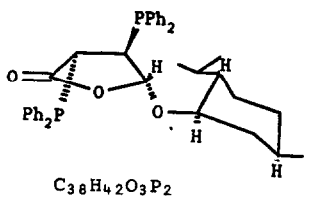
$[\alpha]_D^{20}$ = -42.6 (c, 0.9 in chloroform)

Source of chirality: D-arabinose as starting material

$C_{13}H_{11}F_3O_6S$
5-O-benzyl-3-deoxy-2,3-didehydro-2-O-trifluoromethanesulphonyl-D-*glycero*pentono-1,4-lactone

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

Tetrahedron: Asymmetry **1990**, *1*, 719



$C_{38}H_{42}O_3P_2$

5-(R)-menthyloxy-2,3-bis(diphenylphosphine)-γ-lactone

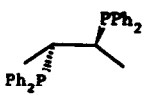
d.e. and e.e. ≥ 96%
$[\alpha]_D^{21}$ -22.1 (c 2.6, MeOH)

source of chirality: asymmetric Michael addition

absolute configuration 3S,4S,5R

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

Tetrahedron: Asymmetry **1990**, *1*, 719



$C_{28}H_{28}P_2$

(2S,3S)-bis(diphenylphosphino)butane (S,S-CHIRAPHOS) optically pure

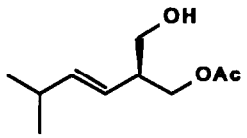
$[\alpha]_D^{25}$ -212 (c 1.5, $CHCl_3$)

source of chirality: enantioselective synthesis using l-menthol

absolute configuration 2S,3S

G. Guanti, L. Banfi, and E. Narisano

Tetrahedron: Asymmetry **1990**, *1*, 721



E.e. = 97% [by ^{1}H n.m.r. with Eu(hfc)$_3$]

$[\alpha]_D^{25}$ = -25.3 (c 2, $CHCl_3$)

Source of chirality: enzymatic hydrolysis

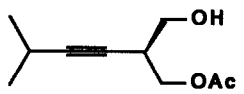
Absolute configuration: S (assigned by chemical correlation)

$C_{10}H_{18}O_3$

(S)-(E) 2-Acetoxymethyl-5-methylhex-3-en-1-ol

G. Guanti, L. Banfi, and E. Narisano

Tetrahedron: Asymmetry **1990**, *1*, 721



E.e. = 88% [by ^{1}H n.m.r. with Eu(hfc)$_3$]

$[\alpha]_D^{25}$ = -10.4 (c 2, $CHCl_3$)

Source of chirality: enzymatic hydrolysis

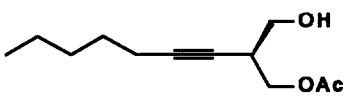
Absolute configuration: S (assigned by chemical correlation)

$C_{10}H_{16}O_3$

(S)-2-Acetoxymethyl-5-methylhex-3-yn-1-ol

G. Guanti, L. Banfi, and E. Narisano

Tetrahedron: Asymmetry **1990**, *1*, 721



E.e. = 82% [by ^{1}H n.m.r. with Eu(hfc)$_3$]

$[\alpha]_D^{25}$ = -10.8 (c 2, $CHCl_3$)

Source of chirality: enzymatic hydrolysis

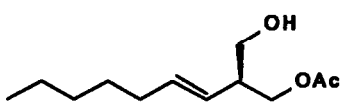
Absolute configuration: S (assigned by chemical correlation)

$C_{12}H_{20}O_3$

(S)-2-(Acetoxymethyl)non-3-yn-1-ol

G. Guanti, L. Banfi, and E. Narisano

Tetrahedron: Asymmetry **1990**, *1*, 721



E.e. = 95% [by ^{1}H n.m.r. with Eu(hfc)$_3$]

$[\alpha]_D^{25}$ = -21.8 (c 2, $CHCl_3$)

Source of chirality: enzymatic hydrolysis

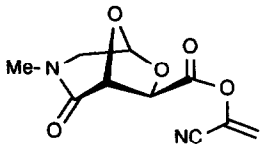
Absolute configuration: S (assigned by chemical correlation)

$C_{13}H_{22}O_3$

(S)-(E) 2-Acetoxymethylnon-3-en-1-ol

J.-L. Reymond, P. Vogel

Tetrahedron: Asymmetry **1990**, *1*, 729

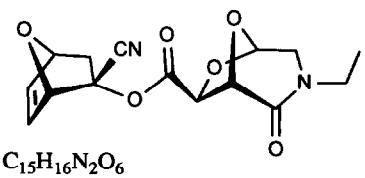


E.e. >99%
$[\alpha]_D^{20}$ = -56.6 (c = 1, CH_2Cl_2)
Source of chirality: (R,R)-tartaric acid

$C_{10}H_{10}N_2O_5$
1'-Cyanovinyl ((1R,5S,7R)-3-methyl-2-oxo-6,8-dioxa-3-azabicyclo[3.2.1]octane-7-*exo*-carboxylate)

J.-L. Reymond, P. Vogel

Tetrahedron: Asymmetry **1990**, *1*, 729



D.e. >99% (^{1}H-NMR)
$[\alpha]_D^{20}$ = -38 (c = 1, CH_2Cl_2)
Source of chirality: (S,S)-tartaric acid

$C_{15}H_{16}N_2O_6$
(1'S,2'R,4'S)-2'-*exo*-Cyano-7'-oxabicyclo[2.2.1]hept-5'-en-2'-*endo*-yl (1S,5R,7S)-3-ethyl-2-oxo--6,8-dioxa-3-azabicyclo[3.2.1]octane-3-*exo*-carboxylate

J.-L. Reymond, P. Vogel

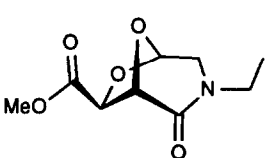
Tetrahedron: Asymmetry **1990**, *1*, 729

E.e. >99% (^{1}H-NMR, C_6D_6, Eu(hfbs)$_3$)
$[\alpha]_D^{20}$ = -960 (c = 0.012, $CHCl_3$)
Source of chirality: SADO(Et)-OMe as a recoverable chiral auxiliary

$C_6H_6O_2$
(-)-(1S,4S)-7-oxabicyclo[2.2.1]hept-5-en-2-one

J.-L. Reymond, P. Vogel

Tetrahedron: Asymmetry **1990**, *1*, 729

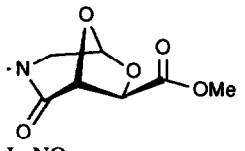


E.e. >99%
$[\alpha]_D^{20}$ = +52.5 (c = 1, CH_2Cl_2)
Source of chirality: (S,S)-tartaric acid

$C_9H_{13}NO_5$
Methyl (1S,5R,7S)-3-ethyl-2-oxo-6,8-dioxa-3-azabicyclo[3.2.1]octane-7-*exo*-carboxylate (SADO(Et)-OMe)

L. Reymond, P. Vogel

Tetrahedron: Asymmetry **1990**, *1*, 729

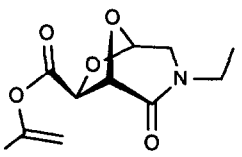


E.e. >99%
$[\alpha]_D^{20}$ = -53.6 (c = 1, CH_2Cl_2)
Source of chirality: (R,R)-tartaric acid

$I_{11}NO_5$
hyl (1R,5S,7R)-3-methyl-2-oxo-6,8-dioxa-3-azabicyclo[3.2.1]octane-7-*exo*-carboxylate
.DO(Me)-OMe)

L. Reymond, P. Vogel

Tetrahedron: Asymmetry **1990**, *1*, 729



E.e. >99%
$[\alpha]_D^{20}$ = +53.9 (c = 1, CH_2Cl_2)
Source of chirality: (S,S)-tartaric acid

$H_{12}N_2O_5$
yanovinyl ((1S,5R,7S)-3-ethyl-2-oxo-6,8-dioxa-3-azabicyclo[3.2.1]octane-7-*exo*-carboxylate)

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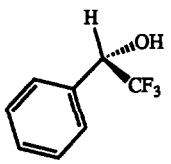
hauvin

Tetrahedron: Asymmetry **1990**, *1*, 737



E.e.= 43 %.

$[\alpha]_D^{25}$ = + 12.8 (c=1; CH_2Cl_2).

Source of chirality: asymmetric reduction of trifluoroacetophenone by one epimer of 2-hydroxy-1,2-diphenylethyl phenylphosphinate.

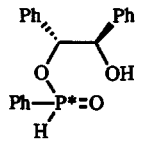
$C_8H_7F_3O$

Absolute configuration: S.

1-phenyl-2,2,2-trifluoroethanol

Chauvin

Tetrahedron: Asymmetry **1990**, *1*, 737



D.e.= 84 % crude (by NMR); 100% upon one recrystallization.

$[\alpha]_D^{25}$ = + 27 (c=1; CH_2Cl_2).

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

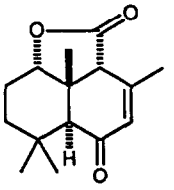
$C_{20}H_{19}O_3P$

Absolute configuration at the phosphorus atom: not assigned

ydroxy-1,2-diphenylethyl phenylphosphinate

S. Nagashima and K. Kanematsu*

Tetrahedron: Asymmetry **1990**, *1*, 743



$C_{15}H_{20}O_3$

(-)-5-oxo-2aβ,5,5aα,6,7,8,8aβ,8bβ-octahydro-3,6,6,8bβ-tetramethyl-2*H*-naphtho[1,8-*bc*]furan-2-one

E.e. = 99% [by comparison with reported value]

$[\alpha]_D^{27}$ -37.4 (c=0.4, $CHCl_3$) ; m.p. 166-167°C

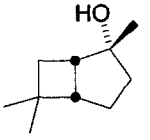
Source of chirality : asymmetric synthesis

Absolute configuration assigned according to lit.

[*cf.* lit. $[\alpha]_D^{23}$ -37.8 (c=0.4, $CHCl_3$) ; m.p. 164-164°C (E. J. Corey et al., *Tetrahedron Lett.*, **1989**, *30*, 7297)]

G. Rosini, P. Carloni, M.C. Iapalucci and E. Marotta

Tetrahedron: Asymmetry **1990**, *1*, 751



$C_{10}H_{18}O$

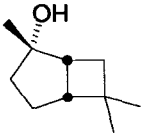
2,6,6-Trimethylbicyclo[3.2.0]heptan-*endo*-2-ol

$[\alpha]_D^{23}$ +42.15 (c 1.595, CH_3OH)

Absolute configuration: 1S,2R,5S

G. Rosini, P. Carloni, M.C. Iapalucci and E. Marotta

Tetrahedron: Asymmetry **1990**, *1*, 751



$C_{10}H_{18}O$

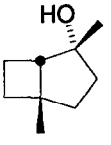
2,6,6-Trimethylbicyclo[3.2.0]heptan-*endo*-2-ol

$[\alpha]_D^{23}$ -42.08 (c 1.600, CH_3OH)

Absolute configuration: 1R,2S,5R

G. Rosini, P. Carloni, M.C. Iapalucci and E. Marotta

Tetrahedron: Asymmetry **1990**, *1*, 751



$C_9H_{16}O$

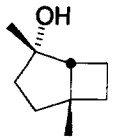
2,5-Dimethylbicyclo[3.2.0]heptan-*endo*-2-ol

$[\alpha]_D^{23}$ +26.79 (c 1.628, CH_3OH)

Absolute configuration: 1S,2R,5S

G. Rosini, P. Carloni, M.C. Iapalucci and E. Marotta

Tetrahedron: Asymmetry **1990**, *1*, 751



$[\alpha]_D^{23}$ -26.40 (c 1.622, CH_3OH)

$C_9H_{16}O$

Absolute configuration: 1R,2S,5R

2,5-Dimethylbicyclo[3.2.0]heptan-*endo*-2-ol