DICTIONARY OF ORGANIC COMPOUNDS

The constitution and physical, chemical and other properties of the principal carbon compounds and their derivatives, together with relevant literature references

FOURTH EDITION

TWELFTH SUPPLEMENT

incorporating new material published in and before 1975

LONDON

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DICTIONARY OF ORGANIC COMPOUNDS

Twelfth Supplement

PREFACE TO TWELFTH SUPPLEMENT

In general this Twelfth Supplement to the Dictionary of Organic Compounds follows the pattern of earlier Supplements. Entries which are supplementary to those in the Main Work are indicated by the sign ★, those supplementary to the Fifth Supplement are indicated by the sign †, and those supplementary to the Tenth Supplement are indicated by the sign ‡. Reference to the Eleventh Supplement is made by use of the phrase "*See* Eleventh Supplement". The majority of the entries are derived from papers published during 1975, although entries have been added for notable omissions and errors in the Main Work and earlier Supplements. A Formula Index is again included. Our thanks are due to those who have brought errors to our notice.

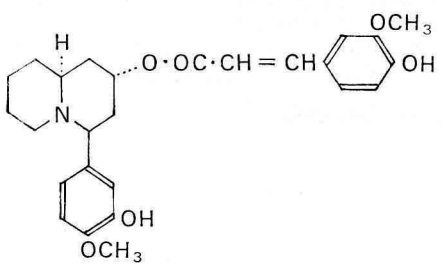
A

Abequose.★

Synthesis:

K. Eklind, P. J. Garegg, and B. Gotthammar, *Acta Chem. Scand.*, 1975, **29B**, 633.

Abresoline



$C_{26}H_{31}NO_6$ MW 453

Alkaloid from *Heimia salicifolia*. Non-cryst. solid. Light absorption: $\lambda_{max.}$ 284 (log ε, 3·73) and 323 nm (3·76).

R. B. Horhammer, A. E. Schwarting, and J. M. Edwards, *J. Org. Chem.*, 1975, **40**, 656.

Abscisic acid.†‡

Biosynthesis:

B. V. Milborrow, *Phytochemistry*, 1975, **14**, 2403.

See also Eleventh Supplement.

Acacipetalin

$H_2C{=}C(CH_3){\cdot}CH(CN){\cdot}O{\cdot}Glc$

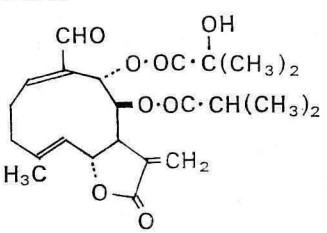
$C_{11}H_{17}NO_6$ MW 259

Constituent of *Acacia sieberiana*.

Structure and biosynthesis:

C. S. Butterfield, E. E. Conn, and D. S. Seigler, *Phytochemistry*, 1975, **14**, 993.

Acanthospermal A

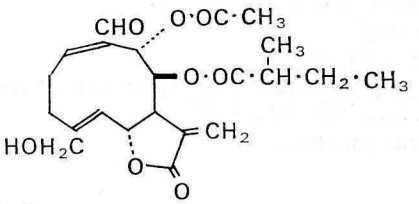


$C_{23}H_{30}O_8$ MW 434

Constituent of *Acanthospermum australe*. Colourless gum. $[\alpha]_{Hg}^{25}$ −54° (c, 0·328 in $CHCl_3$).

W. Herz and P. S. Kalyanaraman, *J. Org. Chem.*, 1975, **40**, 3486.

Acanthospermal B

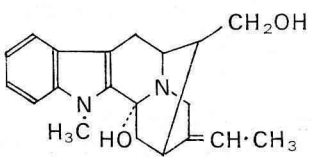


$C_{22}H_{28}O_8$ MW 420

Constituent of *Acanthospermum hispidum*. Colourless gum. $[\alpha]_{Hg}^{25}$ −33° (c, 0·092 in $CHCl_3$).

W. Herz and P. S. Kalyanaraman, *J. Org. Chem.*, 1975, **40**, 3486.

Accedine

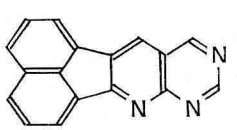


$C_{20}H_{24}N_2O_2$ MW 324

Alkaloid from *Tabernaemontana accedens*. Needles from MeOH. M.p. 148–149°. $[\alpha]_D^{20}$ +72° (c, 0·096 in $CHCl_3$).

H. Achenbach and E. Schaller, *Chem. Ber.*, 1975, **108**, 3842.

Acenaphtho[1′,2′ : 5,6]pyrido[2,3-*d*]pyrimidine

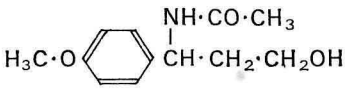


$C_{17}H_9N_3$ MW 255

M.p. 269–270°.

P. Caluwe and T. G. Majewicz, *J. Org. Chem.*, 1975, **40**, 2566.

3-Acetamido-3-(*p*-methoxyphenyl)propan-1-ol



$C_{12}H_{17}NO_3$ MW 223

Metabolite of *Streptomyces michiganensis*. Needles from $CHCl_3$–light petroleum. M.p. 124–124·5°. $[\alpha]_D$ −151° (c, 0·41 in $CHCl_3$).

W. Keller-Schierlein, A. Klauss, H. U. Naegeli, G. Wolf, and H. Zähner, *Experientia*, 1975, **31**, 1001.

4-Acetamidophenol★† (*Acetaminophen, Paracetamol*).

See also:

J. E. Fairbrother, *Analytical Profiles of Drug Substances*, 1974, **3**, 1.

Note. Paracetamol is the name approved by the British Pharmacopoeia Commission.

Acetaminophen. *See* 4-Acetamidophenol.

Acetone.★‡

Molecular structure (*of Di-Me acetal*):

E. E. Asteup and A. M. Aoma, *Acta Chem. Scand.*, 1975, **29A**, 794.

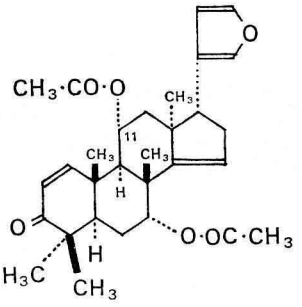
See also Eleventh Supplement.

Acetonitrile.★

Cryst. structure:

M. P. Marzocchi and S. Dobos, *Spectrochim. Acta*, 1974, **30A**, 1437.

11α-Acetoxyazadirone



$C_{30}H_{38}O_6$ MW 494

Constituent of the heartwood of *Khaya anthotheca*. Plates from MeOH. M.p. 153·5–154·5°. $[\alpha]_D^{20}$ −7° (c, 0·75 in $CHCl_3$).

T. G. Halsall and J. A. Troke, *J. C. S. Perkin I*, 1975, 1758.

11β-Acetoxyazadirone

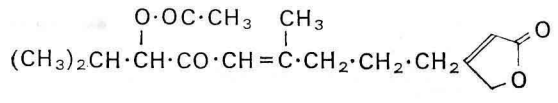
$C_{30}H_{38}O_6$ MW 494

Constituent of the heartwood of *Khaya anthotheca*. Prisms from C_6H_6–hexane. M.p. 230–231° decomp. $[\alpha]_D^{20}$ +31° (c, 1 in $CHCl_3$).

T. G. Halsall and J. A. Troke, *J. C. S. Perkin I*, 1975, 1758.

D. E. U. Ekong, J. I. Okogun, and B. L. Sondengam, *J. C. S. Perkin I*, 1975, 2118.

3-Acetoxy-2,3-dihydrolinifolone



$C_{17}H_{24}O_5$ MW 308

Constituent of *Athanasia* spp. Oil. $[\alpha]_{589}^{24}$ + 18·9°, $[\alpha]_{578}^{24}$ + 20·4°, $[\alpha]_{546}^{24}$ + 25·5° (c, 6·2 in $CHCl_3$).

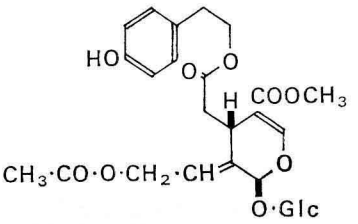
F. Bohlmann and M. Grenz, *Chem. Ber.*, 1975, **108**, 357.

18-Acetoxy-15,16-epoxy-(−)-kaurane-3α,7β-diol. *See* Epoxyisolinearol.

6α-Acetoxy-3β-hydroxyolean-12-en-28-oic acid. *See* Karachic acid.

6β-Acetoxy-(−)-kaur-16-en-18-oic acid. *See* Stachysic acid.

10-Acetoxyligustroside

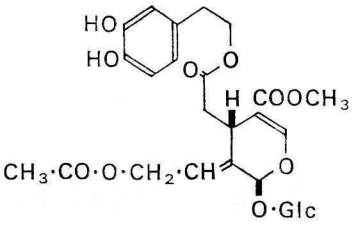


$C_{27}H_{34}O_{14}$ MW 582

Constituent of *Osmanthus fragrans*. Powder. $[\alpha]_D^{18}$ −143·9° (c, 1 in MeOH).

H. Inouye, K. Inoue, T. Nishioka, and M. Kaniwa, *Phytochemistry*, 1975, **14**, 2029.

10-Acetoxyoleuropein

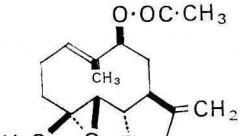


$C_{27}H_{34}O_{15}$ MW 598

Constituent of *Osmanthus fragrans*. Powder. $[\alpha]_D^{21}$ −191° (c, 1·1 in MeOH).

H. Inouye, K. Inoue, T. Nishioka, and M. Kaniwa, *Phytochemistry*, 1975, **14**, 2029.

9α-Acetoxyparthenolide



$C_{17}H_{22}O_5$ MW 306

Constituent of *Matricaria suffructicosa*. Oil. $[\alpha]_{589}^{25}$ −59·7°, $[\alpha]_{587}^{25}$ −62·6°, $[\alpha]_{546}^{25}$ −72·1° (c, 4·7 in $CHCl_3$).

F. Bohlmann and C. Zdero, *Chem. Ber.*, 1975, **108**, 437.

1-Acetylaspidoalbidine.†

Synthesis:

Y. Ban, T. Ohnuma, K. Seki, and T. Oishi, *Tetrahedron Letters*, 1975, 727.

Acetylcholine.★†‡

Cryst. structure (*of bromide*):

T. Svinning and H. Sørum, *Acta Cryst.*, 1975, **31B**, 1581.

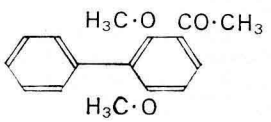
See also Eleventh Supplement.

2-Acetyl-1,8-dihydroxy-3-methylnaphthalene★ (*Nepodin*).

Biosynthesis:

H.-J. Bauch, R. P. Labadie, and E. Leistner, *J. C. S. Perkin I*, 1975, 689.

3-Acetyl-2,6-dimethoxybiphenyl



$C_{16}H_{16}O_3$ MW 256

Cryst. from C_6H_6–light petroleum. M.p. 116–117°. Light absorption: $\lambda_{max.}$ 210 (log ε, 4·16), 246 (4·27), and 273 nm (4·06) in EtOH.

J. R. Blatchly, R. J. S. Green, J. F. W. McOmie, and S. A. Saleh, *J. C. S. Perkin I*, 1975, 309.

Acetylglycine.★

Cryst. structure:

M. F. Mackay, *Cryst. Struct. Commun.*, 1975, **4**, 225.

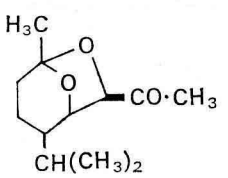
13-Acetyl-16-hydroxyphorbol.

See also:

T. Okuda, T. Yoshida, S. Koike, and N. Toh, *Phytochemistry*, 1975, **14**, 509.

and Eleventh Supplement.

6-Acetyl-4-isopropyl-1-methyl-7,8-dioxabicyclo[3,2,1]-octane



$C_{12}H_{20}O_3$ MW 212

Constituent of Burley tobacco. B.p. 65°/0·001mm. d_4^{20} 1·032. n_D^{20} 1·4608.

Synthesis:

E. Demole and C. Demole, *Helv. Chim. Acta*, 1975, **58**, 1867.

6-Acetyl-8-isovaleryl-2,2-dimethylchromene. *See* Cyclopiloselloidone.

3-(2-Acetyl-1-phenylethyl)-4-hydroxycoumarin.†‡

(−)-(*S*)-.

Cryst. structure:

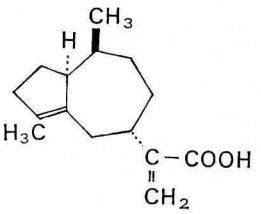
E. J. Valente, W. F. Trager, and L. H. Jensen, *Acta Cryst.*, 1975, **31B**, 954.

2-Acetyl-1,6,8-trihydroxy-3-methylnaphthalene.‡

Synthesis:

T. M. Harris and P. J. Wittek, *J. Am. Chem. Soc.*, 1975, **97**, 3270.

Aciphyllaic acid



$C_{15}H_{22}O_2$ MW 234

Constituent of *Anthemis* spp. Oil. B.p. 150°/0·1 mm.

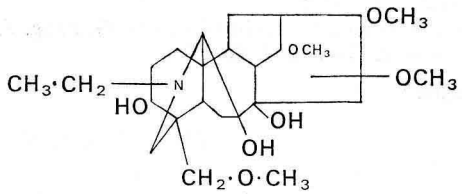
F. Bohlmann and C. Zdero, *Chem. Ber.*, 1975, **108**, 1902.

Acolamone.‡

See also:

M. Niwa, A. Nishiyama, M. Iguchi, and S. Yamamura, *Bull. Chem. Soc. Japan*, 1975, **48**, 2930.

Acomonine



$C_{25}H_{41}NO_7$ MW 467

Alkaloid from the roots of *Aconitum monticola*. M.p. 208–210°.

V. E. Nezhevenko, M. S. Yunusov, and S. Yu. Yunusov, *Khim. Prir. Soedin.*, 1974, **10**, 409 (*Chem. Abstracts*, 1975, **82**, 54165u).

β-Acoradiene.‡

Synthesis:

J. N. Marx and L. R. Norman, *J. Org. Chem.*, 1975, **40**, 1602.

δ-Acoradiene.‡

Synthesis:

J. N. Marx and L. R. Norman, *J. Org. Chem.*, 1975, **40**, 1602.

Acoragermacrone.‡

See also:

M. Niwa, A. Nishiyama, M. Iguchi, and S. Yamamura, *Bull. Chem. Soc. Japan*, 1975, **48**, 2930.

Acorenone B.†

Synthesis:

W. Oppolzer and K. K. Mahalanabis, *Tetrahedron Letters*, 1975, 3411.

B. M. Trost, K. Hirio, and N. Holy, *J. Am. Chem. Soc.*, 1975, **97**, 5873.

Acorone.★†‡

Synthesis:

J. N. Marx and L. R. Norman, *J. Org. Chem.*, 1975, **40**, 1602.

Acridone.★

Synthesis:

G. J. Chen and M. S. Gibson, *J. C. S. Perkin I*, 1975, 1138.

Acrovestone.†

Cryst. structure:

R. C. Secombe and C. H. L. Kennard, *J. Appl. Crystallogr.*, 1974, **7**, 512.

Actinobolin.†‡

Cryst. structure:

J. B. Wetherington and J. W. Moncrief, *Acta Cryst.*, 1975, **31B**, 501.

Actinocarcin.

Antibiotic from *Streptomyces* sp. Fluffy solid. $[\alpha]_D^{20}$ −23·4° (c, 1 in H_2O).

T. Kihara, S. Takeuchi, and H. Yonehara, *J. Antibiotics* (Tokyo), 1974, **27**, 994.

Actinomycin.★†‡

Structures:

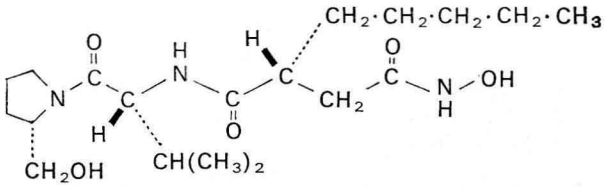
H. Lackner, *Angew. Chem.*, 1975, **87**, 400; *Int. Ed.*, 1975, **14**, 375.

Actinomycin C_1.★†‡

N.M.R. spectrum:

U. Hollstein, E. Breitmaier, and G. Jung, *J. Am. Chem. Soc.*, 1974, **96**, 8036.

Actinonin★



Structure:

J. J. Gordon, J. P. Devlin, A. J. East, W. D. Ollis, I. O. Sutherland, D. E. Wright, and L. Ninet, *J. C. S. Perkin I*, 1975, 819.

Synthesis:

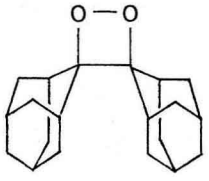
N. H. Anderson, W. D. Ollis, J. E. Thorpe, and A. D. Ward, *J. C. S. Perkin I*, 1975, 825.

Mass spectrum:

N. H. Anderson, J. P. Devlin, S. Jones, W. D. Ollis, and J. E. Thorpe, *J. C. S. Perkin I*, 1975, 852.

See also Eleventh Supplement.

Adamantylideneadamantane-1,2-dioxetane



$C_{20}H_{28}O_2$ MW 300

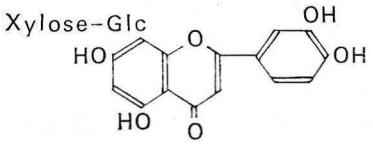
Pale yellow cryst. from MeCN. M.p. 174–176°.

J. H. Wieringa, J. Strating, H. Wynberg, and W. Adam, *Tetrahedron Letters*, 1972, 169.

G. B. Schuster, N. J. Turro, H.-C. Steinmetzer, A. P. Schaap, G. Faler, W. Adam, and J. C. Liu, *J. Am. Chem. Soc.*, 1975, **97**, 7110.

Adipiodone. *See* Iodipamide.

Adonivernith



$C_{26}H_{28}O_{15}$ MW 580

Constituent of *Adonis vernalis*. M.p. 204°. $[\alpha]_D^{22}$ −67·3° (c, 0·7438 in Py). Light absorption: $\lambda_{max.}$ 256 (ε, 16,861), 269 (16,500), and 347 nm (18,709) in MeOH.

Deca-Ac: m.p. 226°.

L. Hörhammer, H. Wagner, and W. Leeb, *Arch. Pharmaz.*, 1960, **293/65**, 264.

H. Wagner, L. Rosprim, and K. Galle, *Phytochemistry*, 1975, **14**, 1089.

Adrenaline.★†

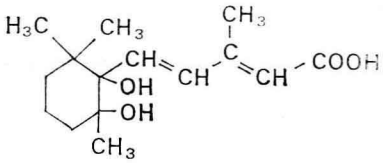
(−)-.

Cryst. structure:

A. M. Andersen, *Acta Chem. Scand.*, 1975, **29B**, 239.

See also Eleventh Supplement.

Aeginetic acid (*Aegnetic acid*‡)



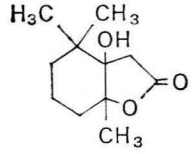
$C_{15}H_{24}O_4$ MW 268

Constituent of *Aeginetia indica* Linn. M.p. 205°. Light absorption: $\lambda_{max.}$ 260 nm (ε, 22,890) in MeOH.

Me ester: $C_{16}H_{26}O_4$. MW 282. M.p. 102–103°.

S. S. Dighe and A. B. Kulkarni, *Indian J. Chem.*, 1973, **11**, 404; 1974, **12**, 413.

Aeginetolide



$C_{11}H_{18}O_3$ MW 198

Constituent of *Aeginetia indica* Linn. M.p. 169–170°.

S. S. Dighe and A. B. Kulkarni, *Indian J. Chem.*, 1973, **11**, 404; 1974, **12**, 413.

Aeroplysinin-1.‡

Synthesis:

R. J. Andersen and D. J. Faulkner, *J. Am. Chem. Soc.*, 1975, **97**, 936.

Aesculetin.★†‡

N.M.R. spectrum:

N. J. Cussans and T. N. Huckerby, *Tetrahedron*, 1975, **31**, 2719.

Aflatoxin B_1.★†‡

Biosynthesis:

P. S. Steyn, R. Vleggaar, P. L. Wessels, and De Buys Scott, *J. C. S. Chem. Comm.*, 1975, 193.

N.M.R. spectrum:

D. P. H. Hsieh, J. N. Seiber, C. A. Reece, D. L. Fitzell, S. L. Yang, J. I. Dalezios, G. N. La Mar, D. L. Budd, and E. Motell, *Tetrahedron*, 1975, **31**, 661.

Agarospirol. ‡

Synthesis:

M. Deighton, C. R. Hughes, and R. Ramage, *J. C. S. Chem. Comm.*, 1975, 662.

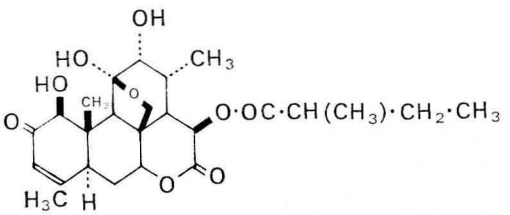
Ageratriol. ‡

Biosynthesis:

F. Bellesia, R. Grandi, A. Marchesini, U. M. Pagnoni, and R. Trave, *Phytochemistry*, 1975, **14**, 1737.

See also Eleventh Supplement.

Ailanthinone

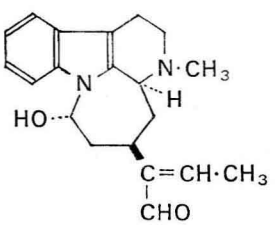


$C_{25}H_{34}O_9$ MW 478

Constituent of *Pierreodendron kerstingii*. Needles from Me_2CO–hexane. M.p. 227–230°. $[\alpha]_D^{27}$ +90° (c, 0·1 in $CHCl_3$). Light absorption: $\lambda_{max.}$ 239 nm (ε, 11,550) in EtOH.

S. M. Kupchan and J. A. Lacadie, *J. Org. Chem.*, 1975, **40**, 654.

Akagerine



$C_{20}H_{24}N_2O_2$ MW 324

Alkaloid from the roots of *Strychnos usambarensis*. Plates from hexane. M.p. 188° decomp. Light absorption: $\lambda_{max.}$ 227 (log ε, 4·51), 276 (3·82), 283 (3·82), and 293 nm (3·73) in MeOH.

Cryst. structure:

L. Angenot, O. Dideberg, and L. Dupont, *Tetrahedron Letters*, 1975, 1357.

L. Dupont, O. Dideberg, and L. Angenot, *Acta Cryst.*, 1975, **31B**, 2378.

Akuammicine. ★

Synthesis:

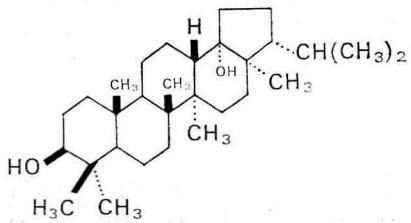
J. P. Kutney and G. B. Fuller, *Heterocycles*, 1975, **3**, 197.

Akuammiline. ★†‡

See also:

M. Doe de Maindreville, L. Le Men-Olivier, J. Levy, and J. Le Men, *Compt. Rend.*, 1975, **280C**, 131.

Alangidiol



$C_{30}H_{52}O_2$ MW 444

Constituent of the leaves of *Alangium lamarckii*. M.p. 228°. $[\alpha]_D$ +49·6° ($CHCl_3$).

3-*Ac*: m.p. 262°.

S. C. Pakrashi and B. Achari, *Tetrahedron Letters*, 1971, 365.

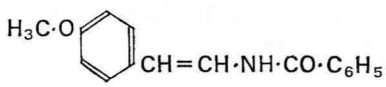
B. Achari, A. Pal, and S. C. Pakrashi, *Tetrahedron Letters*, 1975, 4275.

Alangiside. ‡

Amorph. powder. M.p. 187° decomp.

A. Shoeb, K. Raj, R. S. Kapil, and S. P. Popli, *J. C. S. Perkin I*, 1975, 1245.

Alatamide (N-(p-*Methoxystyryl*)*benzamide*)

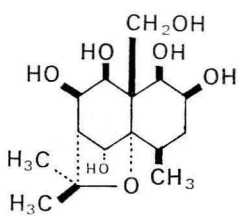


$C_{16}H_{15}NO_2$ MW 253

Constituent of the leaves of *Pleiospermium alatum*. Flakes from MeOH–$CHCl_3$. M.p. 178–180°. Light absorption: $\lambda_{max.}$ 222 (log ε, 4·32), 265 (4·10), and 310 nm (4·40) in EtOH.

A. Chatterjee, M. Chakrabarty, and A. B. Kundu, *Australian J. Chem.*, 1975, **28**, 457.

Alatol



$C_{15}H_{26}O_7$ MW 318

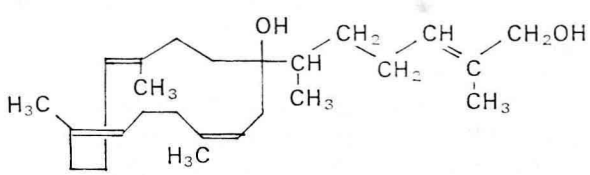
Constituent of *Alatus striatus*. Amorph.

Hexa-Ac: m.p. 205–207°.

K. Sugiura, Y. Shizuri, K. Yamada, and Y. Hirata, *Tetrahedron Letters*, 1975, 2307.

Note. This name has already been given to a compound from *Prangos alata* (Eleventh Supplement).

Albocerol

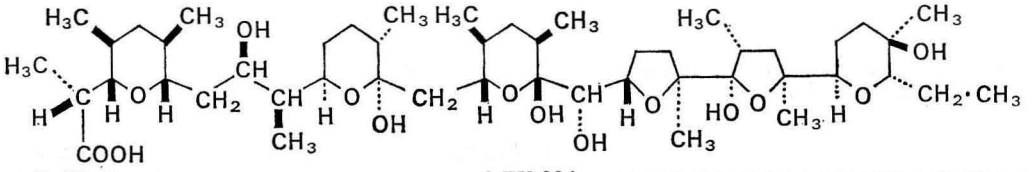


$C_{25}H_{42}O_2$ MW 374

Constituent of the wax of *Ceroplastes albolineatus*. Light absorption: $\lambda_{max.}$ 212 nm (ε, 5026).

R. Veloz, L. Quijano, J. S. Calderon, and T. Rios, *J. C. S. Chem. Comm.*, 1975, 191.

Alborixin



$C_{48}H_{84}O_{14}$ MW 884

Antibiotic from *Streptomyces albus*. Amorph. solid. M.p. 100–115°. $[\alpha]_{578}^{20}$ −7° (c, 4 in Me_2CO).

K salt: m.p. 209–210°.

Tri-Ac: m.p. 70–75°.

Me ester: $C_{49}H_{86}O_{14}$. MW 898. M.p. 67–68°.

Cryst. structure:

M. Alléaume, B. Busetta, C. Farges, P. Gachon, A. Kergomard, and T. Staron, *J. C. S. Chem. Comm.*, 1975, 411.

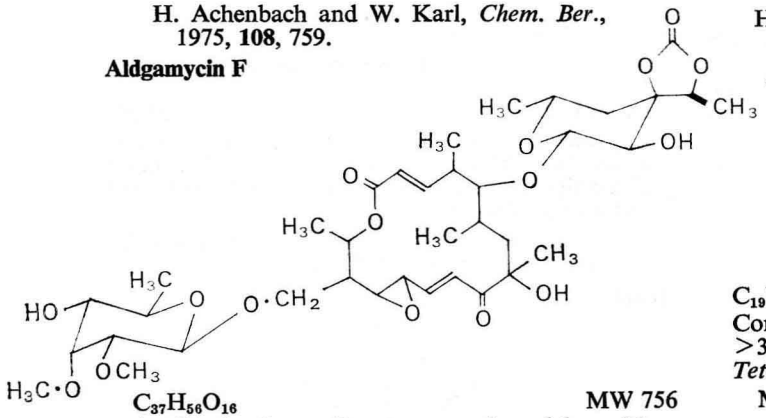
Aldgamycin E.†

Structure:

See:

H. Achenbach and W. Karl, *Chem. Ber.*, 1975, **108**, 759.

Aldgamycin F



$C_{37}H_{56}O_{16}$ MW 756

Antibiotic from *Streptomyces lavendulae*. Non-cryst. $[\alpha]_D^{20}$ −25° (c, 0·3 in $CHCl_3$).

H. Achenbach and W. Karl, *Chem. Ber.*, 1975, **108**, 780.

Aldosterone.★†‡

Improved synthesis:

D. H. R. Barton, N. K. Basu, M. J. Day, R. H. Hesse, M. M. Pechet, and A. N. Starratt, *J. C. S. Perkin I*, 1975, 2243.

Aleuritic acid.★†

Cryst. structure:

S. M. Prasad and M. P. Gupta, *Indian J. Phys.*, 1975, **49**, 72.

Alflorone. *See* Ac *under* 9α-Fluoro-11β,17α,21-trihydroxypregn-4-ene-3,20-dione.

Alizarin.★‡

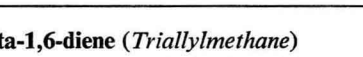
Biosynthesis:

E. Leistner, *Planta Med.*, 1975 (Suppl.), 214.

Allenylcyclopropane. *See* Cyclopropylallene.

***N*-Allyl-7,8-dihydro-14-hydroxynormorphinone.** *See* Naloxone.

4-Allylhepta-1,6-diene (*Triallylmethane*)

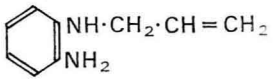


$C_{10}H_{16}$ MW 136

B.p. 43–44°/10 mm. n_D^{20} 1·4520.

G. Lindgren and L. Adolfsson, *Acta Chem. Scand.*, 1975, **29B**, 638.

***N*-Allyl-*o*-phenylenediamine**



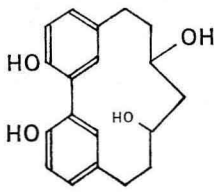
$C_9H_{12}N_2$ MW 148

B.p. 88–92°/0·3 mm.

V. C. Barry, J. G. Belton, N. F. O'Sullivan, and D. Twomey, *J. Chem. Soc.*, 1956, 893.

H. Suschitzky, B. J. Wakefield, and R. A. Whittaker, *J. C. S. Perkin I*, 1975, 401.

Alnusdiol



$C_{19}H_{22}O_4$ MW 314

Constituent of the wood of *Alnus japonica*. M.p. >300°. $[\alpha]_D$ −46·7° (c, 0·52 in EtOH).

Tetra-Ac: m.p. 159–162°.

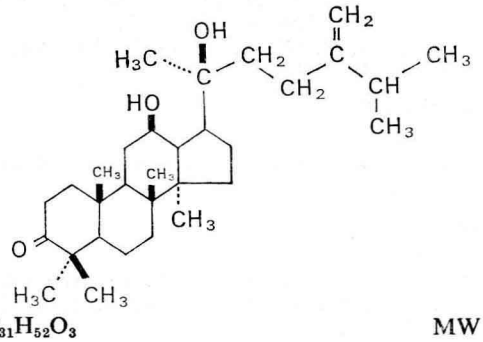
M. Nomura, T. Tokoroyama, and T. Kubota, *J. C. S. Chem. Comm.*, 1975, 316.

Alnusenone.★‡

Synthesis:

R. E. Ireland, P. Bey, K. Cheng, R. J. Czarny, J.-F. Moser, and R. I. Trust, *J. Org. Chem.*, 1975, **40**, 1000.

Alnuserrudiolone ((20S)-12β,20-*Dihydroxy*-24-*methyl*-*enedammaran*-3-*one*)

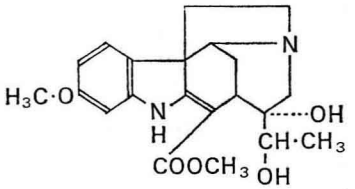


$C_{31}H_{52}O_3$ MW 472

Constituent of *Alnus serrulatoides* Call. Needles. M.p. 174–175°. $[\alpha]_D^{25}$ +50° (c, 2·74 in $CHCl_3$).

T. Suga, T. Hirata, and N. Iwata, *Chem. Lett.*, 1974, 971.

Alstovine (11-*Methoxycompactinervine*)

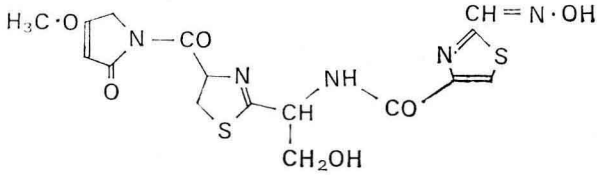


$C_{21}H_{26}N_2O_5$ MW 386

Alkaloid from *Alstonia vitiensis*. Needles from EtOH. M.p. 168°. $[\alpha]_D^{20}$ −502° (c, 1 in EtOH). Light absorption: $\lambda_{max.}$ 261 (log ε, 3·90), 307 (3·76), and 313 nm (3·99) in EtOH.

S. Mamatas-Kalamaras, T. Sévenet, C. Thal, and P. Potier, *Phytochemistry*, 1975, **14**, 1637.

Althiomycin★† (*Matamycin*)



$C_{16}H_{17}N_5O_6S_2$ MW 439

M.p. 181–184° decomp. $[\alpha]_D^{25}$ +25°.

Structure:

H. Sakakibara, H. Naganawa, M. Ohno, K. Maeda, and H. Umezawa, *J. Antibiotics* (Tokyo), 1974, **27**, 897.

B. W. Bycroft and R. Pinchin, *J. C. S. Chem. Comm.*, 1975, 121.

H. A. Kirst, E. F. Szymanski, D. E. Dorman, J. L. Occolowitz, N. D. Jones, M. O. Chaney, R. L. Hamill, and M. M. Hoehn, *J. Antibiotics* (Tokyo), 1975, **28**, 286.

Altrose.★‡

Cryst. structure:

B. J. Poppleton, G. A. Jeffrey, and G. J. B. Williams, *Acta Cryst.*, 1975, **31B**, 2400.

Amicetose.†‡

Synthesis:

J. Bastard and M. Fétizon, *Bull. Soc. Chim. France*, 1975, 1617.

8-(3-Amidinophenyldiazoamino)-3-amino-5-ethyl-6-phenylphenanthridinium chloride. *See* Isometamidium chloride.

Amidone.★†

See also:

R. H. Bishara, *Analytical Profiles of Drug Substances*, 1974, **3**, 365.

and Eleventh Supplement.

3-(1-Aminocarboxymethyl)-2-pyrrolidone-5-carboxylic acid. *See* Penmacric acid.

α-Amino-3-chloro-4,5-dihydro-4-hydroxy-5-isoxazoleacetic acid. *See* Antibiotic U-43,795.

4-Aminocrotonic acid.★

Cryst. structure:

G. P. Jones and P. J. Pauling, *J. C. S. Perkin II*, 1975, 1059.

1-Aminocyclohexanecarboxylic acid.★‡

Cryst. structure:

K. I. Varughese, K. K. Chacko, and R. Zand, *Acta Cryst.*, 1975, **31B**, 866.

2-Amino-2-deoxymannose.†

Cryst. structure (*of Ac*):

A. Neuman, H. Gillier-Pandraud, and F. Longchambon, *Acta Cryst.*, 1975, **31B**, 2628.

2-Amino-4,4-dichlorobutanoic acid. *See* Armentomycin.

2-Amino-1-(3,4-dihydroxyphenyl)ethanol.★

Cryst. structure:

A. M. Andersen, *Acta Chem. Scand.*, 1975, **29B**, 871.

See also Eleventh Supplement.

β-Aminoethylbenzene.★

ab initio *calculations*:

M. Martin, R. Carbo, C. Petrongolo, and J. Tomasi, *J. Am. Chem. Soc.*, 1975, **97**, 1338.

3-(2-Aminoethyl)-5-hydroxyindole.★

C.D. data:

F. M. Sprinkel, D. D. Shillady, and R. W. Strickland, *J. Am. Chem. Soc.*, 1975, **97**, 6653.

See also Eleventh Supplement.

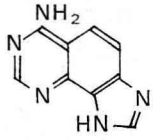
Erratum p. 41, Tenth Supplement

4-Amino-3-hydroxy-6-methylheptanoic acid

Structure should read

$(CH_3)_2CH{\cdot}CH_2{\cdot}CH(NH_2){\cdot}CH(OH){\cdot}CH_2{\cdot}COOH$

6-Aminoimidazo[4,5-*h*]quinazoline (dist-*Benzoadenine*)

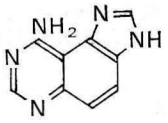


$C_9H_7N_5$ MW 185

Cryst. from EtOH–AcOH. M.p. >320°. Light absorption: $\lambda_{max.}$ 251 (ε, 40,700), 280 sh., 295 (9000), 303 sh., 309 sh., and 315 (sh.) nm in EtOH.

A. G. Morrice, M. A. Sprecker, and N. J. Leonard, *J. Org. Chem.*, 1975, **40**, 363.

9-Aminoimidazo[4,5-*f*]quinazoline (prox-*Benzoadenine*)

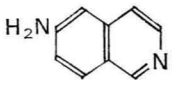


$C_9H_7N_5$ MW 185

Tan cryst. from EtOH. M.p. >320°. Light absorption: $\lambda_{max.}$ 238 (ε, 19,000), 251 (17,300), 258 (18,000), 278 sh., 312 (5900), 324 (9300), 335 sh., and 339 nm (8500) in EtOH.

A. G. Morrice, M. A. Sprecker, and N. J. Leonard, *J. Org. Chem.*, 1975, **40**, 363.

6-Aminoisoquinoline



$C_9H_8N_2$ MW 144

Yellow plates from C_6H_6. M.p. 214–216°.

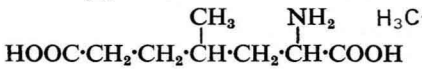
R. Manske and M. Kulka, *J. Am. Chem. Soc.*, 1950, **72**, 4997.
E. Ochiai and T. Nakagome, *Chem. Pharm. Bull.* (Tokyo), 1958, **6**, 497.
H. Poradowska, E. Huczkowska, and W. Czuba, *Synthesis*, 1975, 733.

5-Aminolevulinic acid.†

Biosynthesis:

E. Meller, S. Belkin, and E. Harel, *Phytochemistry*, 1975, **14**, 2399.

2-Amino-4-methylpimelic acid



$C_8H_{15}NO_4$ MW 221

L-.

Constituent of *Lactarius quietus*. Cryst. from Me_2CO.Aq. M.p. 189–191° decomp. $[\alpha]_D^{28}$ −6·3° (c, 1·1 in H_2O).

S.-I. Hatanaka, H. Iizumi, A. Tsuji, and R. Gmelin, *Phytochemistry*, 1975, **14**, 1559.

2-Amino-1,4-naphthoquinone.★

Cryst. structure:

C. Courseille, S. Geoffre, F. Leroy, and M. Hospital, *Cryst. Struct. Commun.*, 1974, **3**, 583.

2-Amino-3-nitropyridine.★

Cryst. structure:

R. Destro, T. Pilati, and M. Simonetta, *Acta Cryst.*, 1975, **31B**, 2883.

α-Aminophenylacetic acid.★†

Synthesis:

T. Oguri, T. Shioiri, and S. Yamada, *Chem. Pharm. Bull.* (Tokyo), 1975, **23**, 167, 173.

2-Aminopyridine.★

Cryst. structure:

M. Chao, E. Schempp, and R. D. Rosenstein, *Acta Cryst*, 1975, **31B**, 2922.

3-Aminopyridine.★†

Cryst. structure:

M. Chao, E. Schempp, and R. D. Rosenstein, *Acta Cryst.*, 1975, **31B**, 2924.

4-Aminopyridine.★

N.M.R. spectrum:

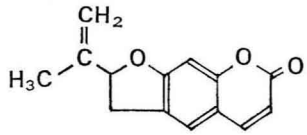
N. Kishore, P. Agrawal, and R. C. Gupta, *Indian J. Phys.*, 1974, **48**, 1007.

Amitriptyline.‡

See also:

K. W. Blessel, B. C. Rudy, and B. Z. Senkowski, *Analytical Profiles of Drug Substances*, 1974, **3**, 125.

Ammirin



$C_{14}H_{12}O_3$ MW 228

Constituent of the fruits of *Ammi majus* L. M.p. 109–111°. Light absorption: $\lambda_{max.}$ 248 (log ε, 3·55), 260 (3·65), and 302 nm (4·17).

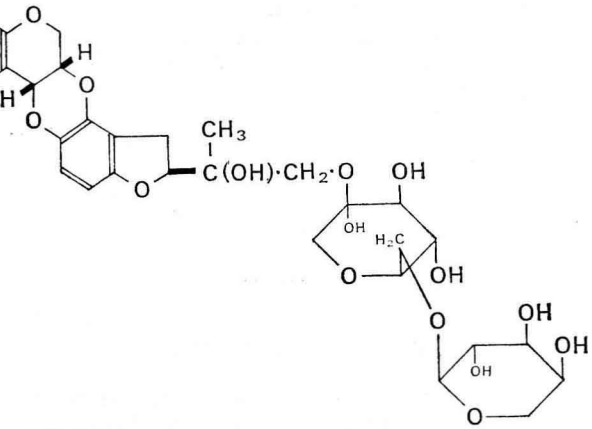
E. A. Abu-Mustafa, F. K. A. El-Bay, and M. B. E. Fayez, *Naturwiss.*, 1975, **62**, 39.

Amorphigenin.★†‡

N.M.R. spectrum:

L. Crombie, G. W. Kilbee, and D. A. Whiting, *J. C. S. Perkin I*, 1975, 1497.

Amorphol

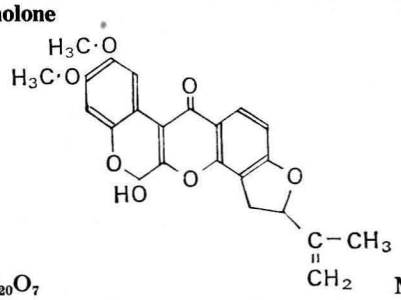


$C_{33}H_{42}O_{17}$ MW 710

Constituent of the fruits of *Amorpha fruticosa*.

A. U. Kasymov, E. S. Kondratenko, and N. K. Abudakirov, *Khim. Prir. Soedin.*, 1974, **10**, 464 (*Chem. Abstracts*, 1975, **82**, 82953t).

Amorpholone



$C_{23}H_{20}O_7$ MW 408

Constituent of the roots of *Amorpha canescens*. Yellow needles from $CHCl_3$. M.p. 255–260° decomp. Light absorption: $\lambda_{max.}$ 213 (ε, 19,000), 234 sh. (13,000), 279 (10,000), and 305 nm (8100) in BuOH.

D. M. Piatak, G. A. Flynn, and P. D. Sorensen, *Phytochemistry*, 1975, **14**, 1391.

Amphibin I.

Synthesis:

R. Tschesche, J. Moch, and C. Spilles, *Chem. Ber.*, 1975, **108**, 2247.

See also Eleventh Supplement.

β-Amyrin.★†‡

Biosynthesis:

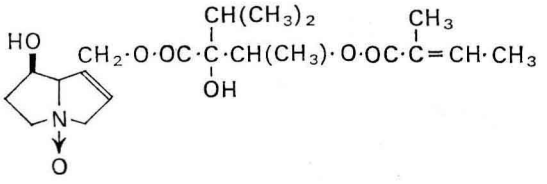
T. Suga and T. Shishibori, *Phytochemistry*, 1975, **14**, 2411.

Anabasine.★

Biosynthesis:

E. Leete, *J. C. S. Chem. Comm.*, 1975, 9.

Anadoline‡



$C_{20}H_{31}NO_7$ MW 397

Revised structure:

C. C. J. Culvenor, J. A. Edgar, J. L. Frahn, L. W. Smith, A. Ulubelen, and S. Doganca, *Australian J. Chem.*, 1975, **28**, 173.

Anagadiol.‡

Synthesis:

A. G. Gonazles, B. M. Fraga, and A. G. Ravelo, *Rev. Latinoamer. Quim.*, 1974, **5**, 220 (*Chem. Abstracts*, 1975, **82**, 140329g).

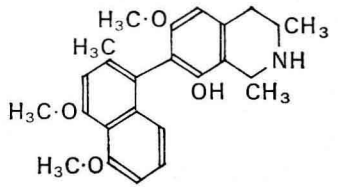
K. Waisser, J. Urban, and A. Vystrčil, *Collection Czech. Chem. Commun.*, 1975, **40**, 452.

Anatabine.★†

Biosynthesis:

E. Leete, *J. C. S. Chem. Comm.*, 1975, 9.

Ancistine (7-(4,5-*Dimethoxy*-2-*methylnaphthyl*)-1,2,3,4-*tetrahydro*-8-*hydroxy*-6-*methoxy*-1,3-*dimethylisoquinoline*)

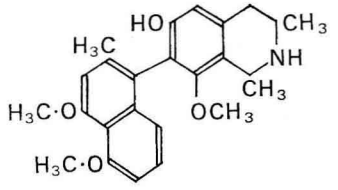


$C_{25}H_{29}NO_4$ MW 407

Alkaloid from *Ancistrocladus ealaensis*. Cryst. from Me_2CO. M.p. 275–276°. $[\alpha]_{578}^{20}$ −34° (c, 1 in $CHCl_3$–MeOH).

J. P. Foucher, J. L. Pousset, and A. Cavé, *Phytochemistry*, 1975, **14**, 2699.

Ancistrine (7-(4,5-*Dimethoxy*-2-*methylnaphthyl*)-1,2,3,4-*tetrahydro*-6-*hydroxy*-8-*methoxy*-1,3-*dimethylisoquinoline*)

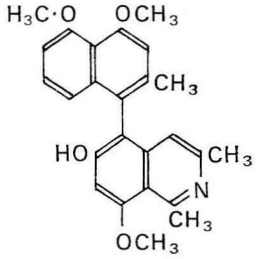


$C_{25}H_{29}NO_4$ MW 407

Alkaloid from *Ancistrocladus ealaensis*. Cryst. from Me_2CO. M.p. 230–231°. $[\alpha]_{578}^{20}$ −35° (c, 1 in MeOH).

J. P. Foucher, J. L. Pousset, and A. Cavé, *Phytochemistry*, 1975, **14**, 2699.

Ancistrocladeine (5-(4,5-*Dimethoxy*-2-*methylnaphthyl*)-6-*hydroxy*-8-*methoxy*-1,3-*dimethylisoquinoline*)

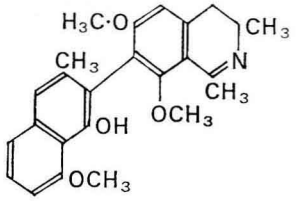


$C_{25}H_{25}NO_4$ MW 403

Alkaloid from *Ancistrocladus ealaensis*. Cryst. from Me_2CO. M.p. 275–277°.

J. P. Foucher, J. L. Pousset, and A. Cavé, *Phytochemistry*, 1975, **14**, 2699.

Ancistrocladidine (3,4-*Dihydro*-7-(1-*hydroxy*-8-*methoxy*-3-*methylnaphth*-2-*yl*)-6,8-*dimethoxy*-1,3-*dimethylisoquinoline*)



$C_{25}H_{27}NO_4$ MW 405

Constituent of the roots of *Ancistrocladus heyneanus* Wall. M.p. 245–247° decomp. $[\alpha]_D^{25}$ −149·73° (c, 1·13 in $CHCl_3$).

T. R. Govindachari, P. C. Parthasarathy, and H. K. Desai, *Indian J. Chem.*, 1973, **11**, 1190.

Absolute configuration:

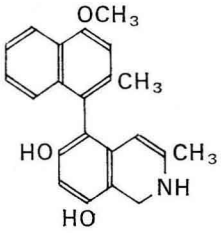
T. R. Govindachari, P. C. Parthasarathy, T. G. Rajagopalan, H. K. Desai, K. S. Ramachandran, and E. Lee, *J. C. S. Perkin I*, 1975, 2134.

Ancistrocladisine.‡

Absolute configuration:

T. R. Govindachari, P. C. Parthasarathy, T. G. Rajagopalan, H. K. Desai, K. S. Ramachandran, and E. Lee, *J. C. S. Perkin I*, 1975, 2134.

Ancistrocongine (1,2-*Dihydro*-6,8-*dihydroxy*-5-(4-*methoxy*-2-*methylnaphthyl*)-3-*methylisoquinoline*)



$C_{22}H_{21}NO_3$ MW 347

Alkaloid from the roots of *Ancistrocladus congolensis*. Cryst. from Me_2CO. M.p. 298–299°.

J. P. Foucher, J. L. Pousset, A. Cavé, A. Bouquet, and R. Paris, *Plant. Med. Phytother.*, 1975, **9**, 87.

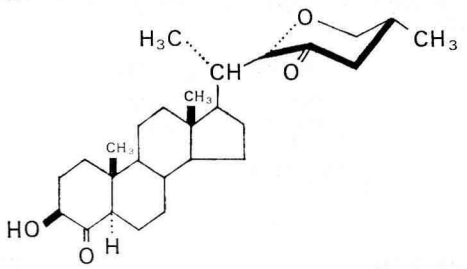
Ancistrocongolensine (5-(4,5-*Dimethoxy*-2-*methyl*-*naphthyl*)-1,2-*dihydro*-6-*hydroxy*-8-*methoxy*-3-*methyl*-*isoquinoline*)

$C_{24}H_{25}NO_4$ MW 391

Alkaloid from the roots of *Ancistrocladus congolensis*. Cryst. from Me_2CO. M.p. 258°.

J. P. Foucher, J. L. Pousset, A. Cavé, A. Bouquet, and R. Paris, *Plant. Med. Phytother.*, 1975, **9**, 87.

Andesgenin



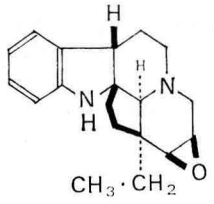
$C_{27}H_{42}O_4$ MW 430

Constituent of *Solanum hypomalacophyllum*. Cryst. from Me_2CO. M.p. 211–214°. $[\alpha]_D$ +39° (c, 0·254 in $CHCl_3$).

Ac: cryst. from MeOH. M.p. 2392–41°.

A. G. Gonzalez, C. G. Francisco, R. Freire, R. Hernandez, J. A. Salazar, E. Suarez, A. Morales, and A. Usubillaga, *Phytochemistry*, 1975, **14**, 2483.

Andrangine



$C_{19}H_{24}N_2O$ MW 296

Alkaloid from *Craspidospermum verticillatum*. Cryst. from hexane. M.p. 132°. $[\alpha]_D^{20}$ −42° (c, 1 in $CHCl_3$).

C. Kan-Fan, B. C. Das, H.-P. Husson, and P. Potier, *Bull. Soc. Chim. France*, 1974, 2839.

Andranginine.

Structure:

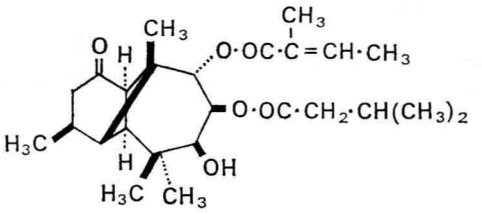
G. Massiot, S. K. Kan, P. Gonord, and C. Duret, *J. Am. Chem. Soc.*, 1975, **97**, 3277

Synthesis:

R. Z. Andriamialisoa, L. Diatta, P. Rasoanaivo, N. Langlois, and P. Potier, *Tetrahedron*, 1975, **31**, 2347.

See also Eleventh Supplement.

9α-Angeloyloxy-2,3α-dihydro-7β-hydroxy-8β-isovaleryloxy-1-oxo-α-longipinene

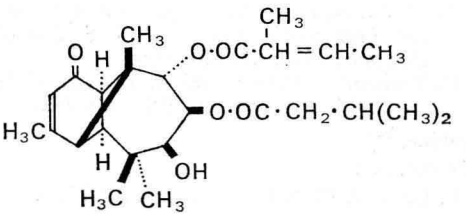


$C_{25}H_{38}O_6$ MW 434

Constituent of the roots of *Polypteris texana*. Oil.

F. Bohlmann and C. Zdero, *Chem. Ber.*, 1975, **108**, 3543.

9α-Angeloyloxy-7β-hydroxy-8β-isovaleryloxy-1-oxo-α-longipinene



$C_{25}H_{36}O_6$ MW 432

Constituent of the roots of *Polypteris texana*. Oil.

F. Bohlmann and C. Zdero, *Chem. Ber.*, 1975, **108**, 3543.

Angustine. ‡

Synthesis:

T. Kametani, M. Takeshita, M. Ihara, and K. Fukumoto, *Heterocycles*, 1975, **3**, 627.

See also Eleventh Supplement.

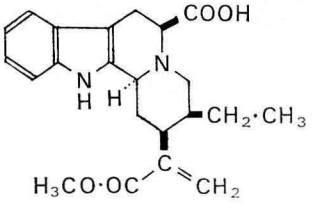
Angustoline. ‡

Synthesis:

I. Ninomiya and T. Naito, *Heterocycles*, 1974, **2**, 607.

See also Eleventh Supplement.

Anhydroadirubine



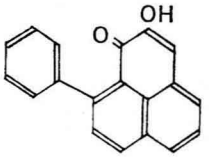
$C_{22}H_{26}N_2O_4$ MW 382

Alkaloid from *Adina rubescens*.

Me ester: $C_{23}H_{28}N_2O_4$. MW 396. Amorph. $[\alpha]_D^{25}$ −28° ($CHCl_3$).

R. T. Brown and A. A. Charalambides, *Phytochemistry*, 1975, **14**, 2527.

Anigorufone



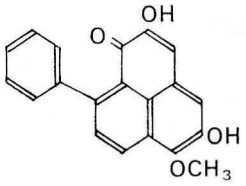
$C_{19}H_{12}O_2$ MW 272

Pigment from *Anigozanthos rufus*. Orange needles from light petroleum. M.p. 123–125°. Light absorption: $\lambda_{max.}$ 228 sh. (log ε, 4·18), 243 (4·28), 259 sh. (4·23), 269 sh. (4·19), 289 sh. (3·98), 340 sh. (3·79), 352 (3·82), 368 (3·88), and 424 nm (3·68) in EtOH.

Me ether: $C_{20}H_{14}O_2$. MW 286. Yellow needles from C_6H_6–light petroleum. M.p. 107–109°.

R. G. Cooke and R. L. Thomas, *Australian J. Chem.*, 1975, **28**, 1053.

Anigozanthin



$C_{20}H_{14}O_4$ MW 318

Pigment from *Anigozanthos rufus*. Crimson needles from toluene–light petroleum. M.p. 149–151°.

R. G. Cooke and R. L. Thomas, *Australian J. Chem.*, 1975, **28**, 1053.

Aniline.★†‡

New synthesis:

J. B. Hendrickson, R. Bergeron, and D. D. Sternbach, *Tetrahedron*, 1975, **31**, 2517.

Ankorine.†

Structure and stereochemistry:

T. Fujii, S. Yoshifuji, and K. Yamada, *Tetrahedron Letters*, 1975, 1527.

S. Yoshifuji and T. Fujii, *Tetrahedron Letters*, 1975, 1965.

See also Eleventh Supplement.

[18]Annulene.†‡

See also:

K. Stockel and F. Sondheimer, *Org. Syn.*, 1974, **54**, 1.

and Eleventh Supplement.

Anthracene.★

Synthesis:

I. Agranat and Y.-S. Shih, *Synthesis*, 1974, 865.

I. Fleming and T. Mah, *J. C. S. Perkin I*, 1975, 964.

Anthramycin.†

Biosynthesis:

L. H. Hurley, M. Zmijewski, and C.-J. Chang, *J. Am. Chem. Soc.*, 1975, **97**, 4372.

See also Eleventh Supplement.

Antibiotic 61-26

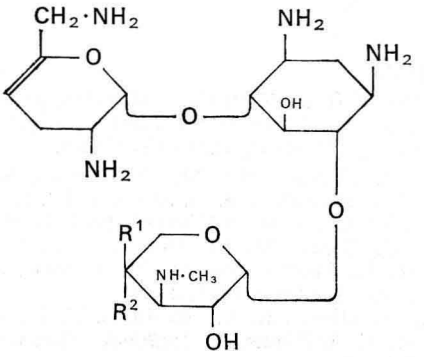
$C_{50}H_{93}N_{11}O_{17}$ MW 1119

Peptide antibiotic from *Bacillus* sp. Amorph. powder. M.p. 170–180° decomp.

B,HCl: amorph. powder. M.p. 193–200° decomp. $[\alpha]_D^{24}$ +51° (c, 0·494 in Me_2SO).

J. Shoji, P. Sakazaki, Y. Wakisaka, K. Koizumi, and M. Mayama, *J. Antibiotics* (Tokyo), 1975, **28**, 129.

Antibiotic 66-40B



$R^1 = H$, $R^2 = OH$

$C_{18}H_{35}N_5O_7$ MW 433

Minor product from *Micromonospora inyoensis*. Amorph. M.p. 91–102°. $[\alpha]_D$ +152·8° (c, 0·3 in H_2O).

D. H. Davies, D. Greeves, A. K. Mallams, J. B. Morton, and R. W. Tkach, *J. C. S. Perkin I*, 1975, 814.

Antibiotic 66-40D

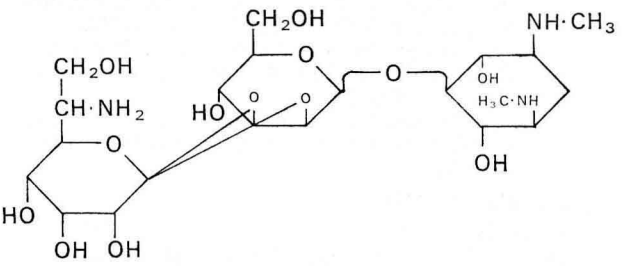
$R^1 = OH$, $R^2 = H$

$C_{18}H_{35}N_5O_7$ MW 433

Minor product from *Micromonospora inyoensis*. Amorph. M.p. 92–103°. $[\alpha]_D$ +147·3° (c, 0·3 in H_2O).

D. H. Davies, D. Greeves, A. K. Mallams, J. B. Morton, and R. W. Tkach, *J. C. S. Perkin I*, 1975, 814.

Antibiotic A-16316-C



$C_{21}H_{39}N_3O_{13}$ MW 541

Antibiotic from *Streptoverticillium eurocidicus*. White powder. M.p. 175–185° decomp. $[\alpha]_D$ +7·5° (c, 1 in H_2O).

A. Tamura, R. Furuta, and H. Kotani, *J. Antibiotics* (Tokyo), 1975, **28**, 260.