

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
THIRTEENTH SUPPLEMENT

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FOURTH EDITION
THIRTEENTH SUPPLEMENT

incorporating new material published in and before 1976

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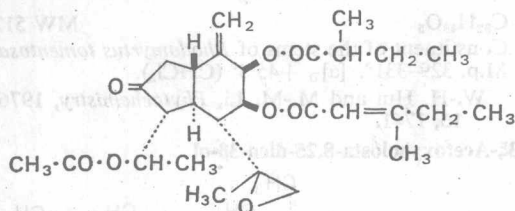
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PREFACE TO THIRTEENTH SUPPLEMENT

In general this Thirteenth 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 $\star$, those supplementary to the Fifth Supplement are indicated by the sign $\dagger$, and those supplementary to the Tenth Supplement are indicated by the sign $\ddagger$. Reference to the Eleventh and Twelfth Supplements is made by use of the phrase "See Eleventh and/or Twelfth Supplement". The majority of the entries are derived from papers published during 1976, 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

Abrotanifolone



$C_{25}H_{40}O_8$ MW 504
Constituent of *Senecio abrotanifolius*. Cryst. from Et_2O -light petroleum. M.p. 133° .

F. Bohlmann and A. Suwita, *Chem. Ber.*, 1976, 109, 2014.

Abscisic acid. ††

Synthesis:

M. Shibasaki, S. Terashima, and S. Yamada, *Chem. Pharm. Bull.* (Tokyo), 1976, 24, 315.

H. J. Mayer, N. Rigassi, U. Schwieter, and B. C. L. Weedon, *Helv. Chim. Acta*, 1976, 59, 1424.

Cryst. structure:

P. Swaminathan, J. Vijayalakshmi, and R. Srinivasan, *Acta Cryst.*, 1976, 32B, 2351.

See also Eleventh and Twelfth Supplements.

Acacetin. ★††

N.M.R. spectrum:

H. Wagner, V. M. Chari, and J. Sonnenbichler, *Tetrahedron Letters*, 1976, 1799.

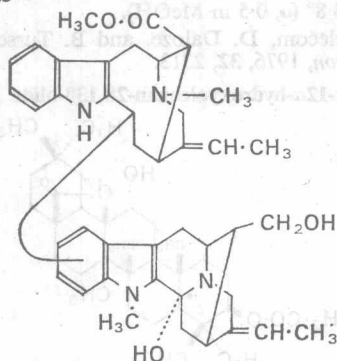
Acacinin A.

Saponin from the seeds of *Acacia concinna*. M.p. $170-171^\circ$. $[\alpha]_D^{20} -41.2^\circ$ (c, 1 in MeOH).

Ac: m.p. $141-143^\circ$.

I. P. Varshney, G. Handa, R. Pal, and H. C. Srivastava, *Indian J. Chem.*, 1976, 14B, 228.

Accedinine



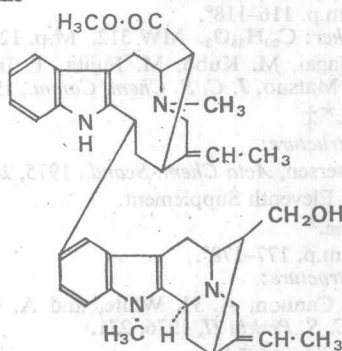
$C_{41}H_{48}N_4O_4$

MW 660

Alkaloid from *Tabernaemontana accedens*. Oil. $[\alpha]_D^{20} -81^\circ$ (c, 0.2 in $CHCl_3$).

H. Achenbach and E. Schaller, *Chem. Ber.*, 1976, 109, 3527.

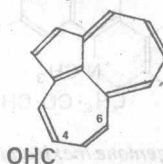
Accedinisine



$C_{41}H_{48}N_4O_3$ MW 644
Alkaloid from *Tabernaemontana accedens*. Needles from Me_2CO . M.p. 235° decomp. $[\alpha]_D^{20} -60^\circ$ (c, 0.4 in $CHCl_3$).

H. Achenbach and E. Schaller, *Chem. Ber.*, 1976, 109, 3527.

Acceptylene-4-carbaldehyde



$C_{18}H_{10}O$ MW 206
Yellow-brown cryst. M.p. $75-76^\circ$.

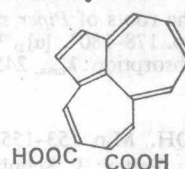
H. Diehl and K. Hafner, *Angew. Chem.*, 1976, 88, 124; *Int. Ed.*, 1976, 15, 107.

Acceptylene-6-carbaldehyde

$C_{18}H_{10}O$ MW 206
Reddish-brown needles. M.p. $65-66^\circ$.

H. Diehl and K. Hafner, *Angew. Chem.*, 1976, 88, 124; *Int. Ed.*, 1976, 15, 107.

Acceptylene-4,5-dicarboxylic acid



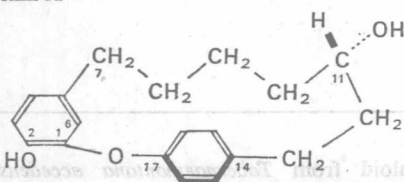
$C_{18}H_{10}O_4$

MW 266

Di-Me ester: C₁₈H₁₄O₄. MW 294. M.p. 97–98°.

H. Diehl and K. Hafner, *Angew. Chem.*, 1976, 88, 124; *Int. Ed.*, 1976, 15, 107.

Acerogenin A



C₁₈H₂₂O₃ MW 298

Constituent of the stem bark of *Acer nikoense*. M.p. 151–152°. [α]_D²⁰ +57.3°. Light absorption: λ_{max} 278 nm (ϵ , 2390) in EtOH.

Di-Ac: m.p. 116–118°.

2-Me ether: C₂₀H₂₄O₃. MW 312. M.p. 124–125°.

M. Nagai, M. Kubo, M. Fujita, T. Inoue, and M. Matsuo, *J. C. S. Chem. Comm.*, 1976, 338.

Acetamide.*†

Cryst. structure:

T. Ottersen, *Acta Chem. Scand.*, 1975, 29A, 944.

See also Eleventh Supplement.

Acetamidine.*

B,HCl: m.p. 177–178°.

Cryst. structure:

J. R. Cannon, A. H. White, and A. C. Willis, *J. C. S. Perkin II*, 1976, 271.

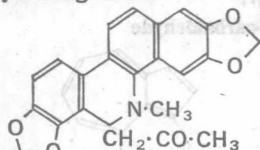
4-Acetamidophenol.*†

Cryst. structure:

M. Haisa, S. Kashino, R. Kawai, and H. Maeda, *Acta Cryst.*, 1976, 32B, 1283.

See also Twelfth Supplement.

6-Acetylidihydrosanguinarin

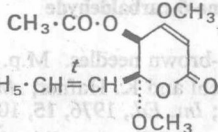


C₂₃H₁₉NO₅ MW 389

Alkaloid from *Argemone mexicana*. M.p. 191°. Light absorption: λ_{max} 235 (log ϵ , 4.64), 284 (4.64), and 323 nm (4.26) in MeOH.

W. Dopke and U. Hess, *Z. Chem.*, 1976, 16, 54.

5-Acetoxy-5,6-dihydro-4,6-dimethoxy-6-trans-styryl-2H-pyran-2-one



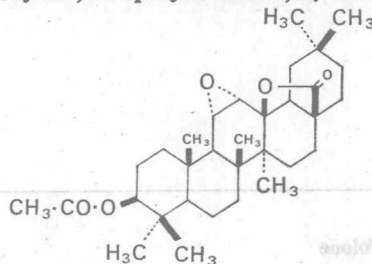
C₁₇H₁₈O₆ MW 318

(+)-. Constituent of the roots of *Piper sanctum*. Needles from EtOH. M.p. 178–180°. [α]_D²⁰ +380° (c, 0.1 in CHCl₃). Light absorption: λ_{max} 245 nm (log ϵ , 4.46) in MeOH.

(±)-. **Cryst. from MeOH.** M.p. 153–155°.

R. Hansel, A. Pelter, J. Schulz, and C. Hille, *Chem. Ber.*, 1976, 109, 1617.

3 β -Acetoxy-11 α ,12 α -epoxyoleanan-28,13 β -olide



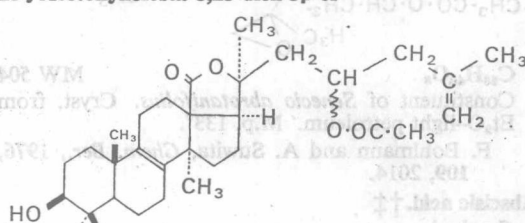
C₃₂H₄₈O₅

MW 512

Constituent of the stems of *Rhodomyrtus tomentosa*. M.p. 329–331°. [α]_D +45.3° (CHCl₃).

W.-H. Hui and M.-M. Li, *Phytochemistry*, 1976, 15, 1741.

23 ξ -Acetoxyholosta-8,25-dien-3 β -ol



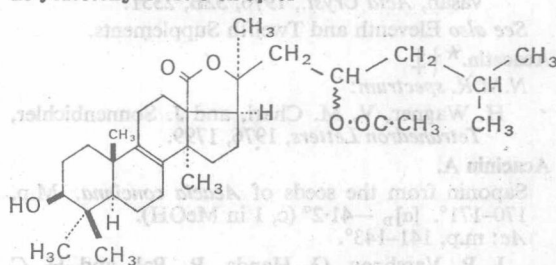
C₃₂H₄₈O₅

MW 512

Aglycone from *Thelonota ananas*. M.p. 196–198°.

A. Kelecom, D. Daloze, and B. Tursch, *Tetrahedron*, 1976, 32, 2313.

23 ξ -Acetoxyholost-8-en-3 β -ol



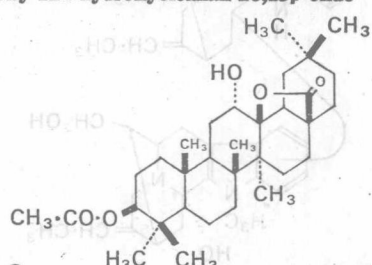
C₃₂H₅₀O₅

MW 514

Aglycone from *Thelonota ananas*. M.p. 198–201°. [α]_D +13.8° (c, 0.5 in MeOH).

A. Kelecom, D. Daloze, and B. Tursch, *Tetrahedron*, 1976, 32, 2313.

3 β -Acetoxy-12 α -hydroxyoleanan-28,13 β -olide

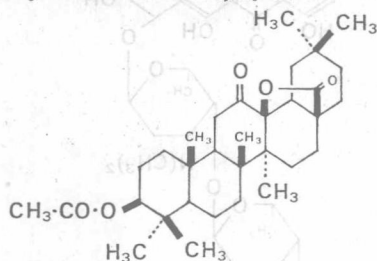


C₃₂H₅₀O₅

MW 514

Constituent of the stems of *Rhodomirtus tomentosa*. M.p. 284–286°. $[\alpha]_D^{25} +39.7^\circ$ (CHCl₃).

W.-H. Hui and M.-M. Li, *Phytochemistry*, 1976, 15, 1741.

3 β -Acetoxy-12-oxo-oleanan-28,13 β -olide

C₃₂H₄₈O₅

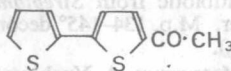
MW 512

Constituent of the stems of *Rhodomirtus tomentosa*. M.p. 287–289°.

W.-H. Hui and M.-M. Li, *Phytochemistry*, 1976, 15, 1741.

ent-11 α -Acetoxy-7 β ,14 α ,20-trihydroxykaur-16-en-15-one. See Rastronol F.

5-Acetyl-2,2'-bithienyl



C₁₀H₈OS₂

MW 208

Constituent of *Haploesthes greggii*. Yellow cryst. M.p. 113°. Light absorption: λ_{max} 343 nm (ϵ , 22,400) in Et₂O.

F. Bohlmann, C. Zdero, and M. Grenz, *Phytochemistry*, 1976, 15, 1309.

Acetylcholine.*††

Conformation:

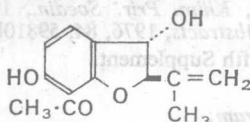
M. Sax, M. Rodrigues, G. Blank, M. K. Wood, and J. Pletcher, *Acta Cryst.*, 1976, 32B, 1953.

See also Eleventh and Twelfth Supplements.

Acetylcolletotrichin.†

This compound has been renamed Colletotrichin.

7-Acetyl-2,3-dihydro-2-isopropenylbenzofuran-3,6-diol



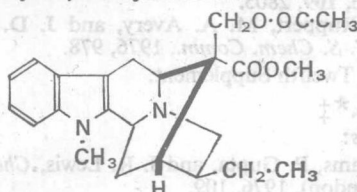
C₁₃H₁₄O₄

MW 234

Constituent of *Brickellia beronicaefolia*. Oil.

F. Bohlmann and C. Zdero, *Chem. Ber.*, 1976, 109, 1436.

17-O-Acetyl-19,20-dihydrovoachalotine



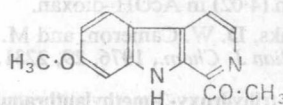
C₂₄H₃₀N₂O₄

MW 410

Alkaloid from *Voacanga chaloniana*. Cryst. from EtOH. M.p. 201°. $[\alpha]_D^{25} -54^\circ$ (CHCl₃). Light absorption: λ_{max} 228 (log ϵ , 4.6) and 283 nm (3.9) in MeOH.

E. Bombardelli, A. Bonati, B. Gabetta, E. Martinelli, G. Mustich, and B. Danieli, *Phytochemistry*, 1976, 15, 2021.

6-Acetyl-5-hydroxy-4-methylcoumarin. See Licoumarin.

1-Acetyl-7-methoxy- β -carboline

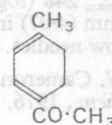
C₁₄H₁₂N₂O₂

MW 240

Alkaloid from *Banisteriopsis caapi*. Pale yellow needles from CHCl₃. M.p. 224–225° decomp. Light absorption: λ_{max} 260 (log ϵ , 4.18), 289 (4.37), and 334 nm (4.02) in CHCl₃.

Y. Hashimoto and K. Kawanishi, *Phytochemistry*, 1976, 15, 1559.

1-Acetyl-4-methylcyclohexa-1,3-diene



C₉H₁₂O

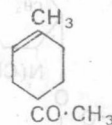
MW 136

Constituent of the oil of *Santalum album* L. B.p. 92°/10 mm. d_4^{20} 0.979. n_D^{20} 1.5369.

Synthesis:

E. Demole, C. Demole, and P. Enggist, *Helv. Chim. Acta*, 1976, 59, 737.

4-Acetyl-1-methylcyclohex-1-ene

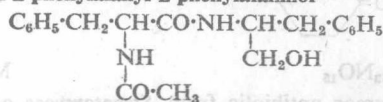


C₉H₁₄O

MW 138

Constituent of the oil of *Santalum album* L.

E. Demole, C. Demole, and P. Enggist, *Helv. Chim. Acta*, 1976, 59, 737.

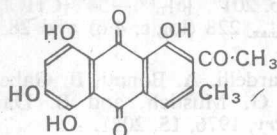
N-Acetyl-L-phenylalanyl-L-phenylalaninol

C₂₀H₂₄N₂O₃

MW 340

Metabolite of *Emicellolopsis salmosynnemata*. Needles from EtOH. $[\alpha]_D^{25} -40^\circ$ (c, 1 in EtOH). Light absorption: λ_{max} 247 sh., 252, 258, 264, and 287 (sh.) nm in EtOH.

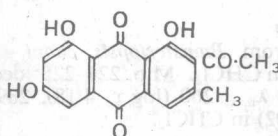
A. D. Argoudelis, S. A. Mizsak, and L. Baczynsky, *J. Antibiotics* (Tokyo), 1975, 28, 733.

2-Acetyl-1,5,6,8-tetrahydroxy-3-methylanthraquinone $C_{17}H_{12}O_7$

MW 328

Aglycone from *Eriococcus coriaceus*. Deep red cryst. M.p. $> 300^\circ$. Light absorption: $\lambda_{\max}$ 260 (log ϵ , 4.53), 307 (4.07), 385 (3.46), 480 sh. (4.09), 497 (4.14), and 520 (sh.) nm (4.02) in AcOH-dioxan.

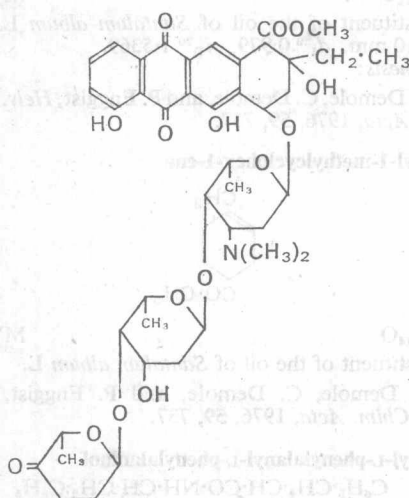
H. J. Banks, D. W. Cameron, and M. J. Crossley, *Australian J. Chem.*, 1976, 29, 2231.

2-Acetyl-1,6,8-trihydroxy-3-methylanthraquinone $C_{17}H_{12}O_6$

MW 312

Aglycone from *Eriococcus coriaceus*. Yellow-orange cryst. from AcOH and by sublim. M.p. $295-296^\circ$. Light absorption: $\lambda_{\max}$ 248 (log ϵ , 4.33), 265 (4.29), 289 (4.34), and 439 nm (4.07) in MeOH-AcOH. 8- β -D-Glucosyl: yellow needles. M.p. $179-181^\circ$.

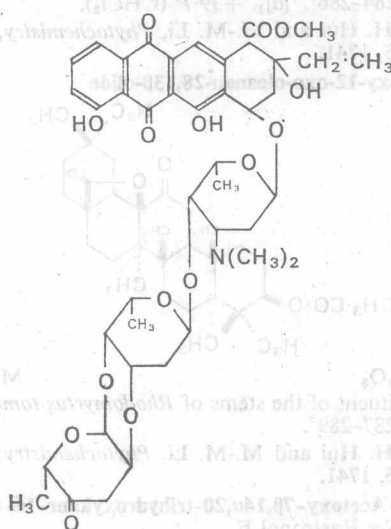
H. J. Banks, D. W. Cameron, and M. J. Crossley, *Australian J. Chem.*, 1976, 29, 2231.

Aclacinomycin A $C_{42}H_{53}NO_{15}$

MW 811

Antitumor antibiotic from *Streptomyces galilaeus*. Yellow powder. M.p. $129-135^\circ$ decomp. $[\alpha]_D^{24} +29^\circ$ (c, 1 in $CHCl_3$).

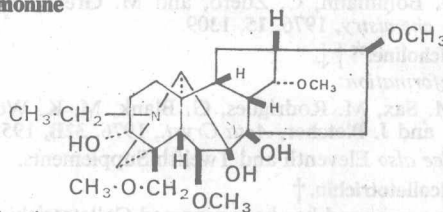
Y. Oki, T. Matsuzawa, A. Yoshimoto, K. Numata, I. Kitamura, S. Hori, A. Takamatsu, H. Umezawa, M. Ishizuka, H. Naganawa, H. Suda, M. Hamada, and T. Takeuchi, *J. Antibiotics* (Tokyo), 1975, 28, 830.

Aclacinomycin B $C_{42}H_{51}NO_{15}$

MW 809

Antitumor antibiotic from *Streptomyces galilaeus*. Yellow powder. M.p. $134-145^\circ$ decomp. $[\alpha]_D^{24} +3^\circ$ (c, 1 in $CHCl_3$).

T. Oki, T. Matsuzawa, A. Yoshimoto, K. Numata, I. Kitamura, S. Hori, A. Takamatsu, H. Umezawa, M. Ishizuka, H. Naganawa, H. Suda, M. Hamada, and T. Takeuchi, *J. Antibiotics* (Tokyo), 1975, 28, 830.

Acomonine**Structure:**

V. E. Nezhevenko, M. S. Yunusov, and S. Yu. Yufusov, *Khim. Prir. Soedin.*, 1975, 11, 389 (*Chem. Abstracts*, 1976, 84, 59810b).

See also Twelfth Supplement.

Aconitine.*††**N.M.R. spectrum:**

S. W. Pelletier and Z. Djarmati, *J. Am. Chem. Soc.*, 1976, 98, 2626.

Acorenone B.†**Synthesis:**

H. Wolf, M. Kolleck, and W. Rascher, *Chem. Ber.*, 1976, 109, 2805.

J. F. Ruppert, M. A. Avery, and J. D. White, *J. C. S. Chem. Comm.*, 1976, 978.

See also Twelfth Supplement.

Acronycine.*†**Synthesis:**

J. Adams, P. Gupta, and J. R. Lewis, *Chem. Ind.* (London), 1976, 109.

See also Eleventh Supplement.

Acroptilin.†

This compound is identical with Chlorohyssopifolin C.

A. G. Gonzalez, J. Bermejo, J. L. Breton, G. M. Massanet, B. Dominguez, and J. M. Amaro, *J. C. S. Perkin I*, 1976, 1663.

Actinioerythrol.‡

Synthesis:

F. Kienzle and R. E. Minder, *Helv. Chim. Acta*, 1976, 59, 439.

Actinobolin.††

Cryst. structure (of N-Ac):

R. B. Von Dreele, *Acta Cryst.*, 1976, 32B, 2853.

See also Twelfth Supplement.

Actinocarcin.

See also:

T. Kihara, S. Suzuki, and H. Yonehara, *J. Antibiotics* (Tokyo), 1976, 29, 428.

and Twelfth Supplement.

Actinodaphnine.*

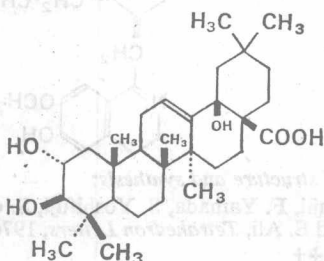
Synthesis:

P. C. Parthasarathy, *Indian J. Chem.*, 1975, 13, 945.

Actinospectacin.*‡

Biosynthesis:

R. M. Stroshane, M. Taniguchi, K. L. Rinehart, J. P. Rolls, W. J. Haak, and B. A. Ruff, *J. Am. Chem. Soc.*, 1976, 98, 3025.

Acutangulic acid (2 α ,3 β ,18 β -Trihydroxyolean-12-en-28-oic acid)

$C_{30}H_{48}O_5$ MW 488

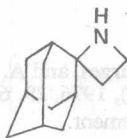
Constituent of the leaves of *Barringtonia acutangula*.

M.p. 290–291°. $[\alpha]_D^{25} +15^\circ$.

2,3-Di-Ac: m.p. 188–189°. $[\alpha]_D^{25} -35^\circ$.

— Me ester: m.p. 219–220°.

G. K. A. S. S. Narayan, L. R. Row, and C. S. Sastry, *Curr. Sci.*, 1976, 45, 518.

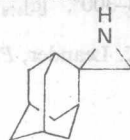
Adamantane-2-spiro-2'-azetidine

$C_{12}H_{18}N$

M.p. 53–56°.

MW 177

T. Sasaki, S. Eguchi, and Y. Hirako, *Tetrahedron*, 1976, 32, 437.

Adamantane-2-spiro-2'-aziridine

$C_{11}H_{17}N$

M.p. 141–143°.

MW 163

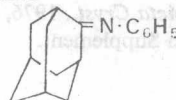
T. Sasaki, S. Eguchi, and Y. Hirako, *Tetrahedron*, 1976, 32, 437.

Adamantene.‡

See also:

W. Burns, D. Grant, M. A. McKervery, and G. Step, *J. C. S. Perkin I*, 1976, 234.

and Eleventh Supplement.

Adamantylideneaniline

$C_{16}H_{19}N$

M.p. 60–64°.

MW 225

T. Sasaki, S. Eguchi, and Y. Hirako, *Tetrahedron*, 1976, 32, 437.

Adenine.*††

Synthesis:

M. Sekiya, J. Suzuki, and Y. Terao, *Chem. Pharm. Bull.* (Tokyo), 1976, 24, 1331.

See also Eleventh Supplement.

Adirubine.‡

Synthesis (of Me ester):

E. E. van Tamelen and C. Dorschel, *J. C. S. Chem. Comm.*, 1976, 529.

Configuration:

R. T. Brown and D. M. Duckworth, *J. C. S. Chem. Comm.*, 1976, 530.

Adlumine.*†

N.M.R. spectrum:

D. W. Hughes, H. L. Holland, and D. B. MacLean, *Can. J. Chem.*, 1976, 54, 2252.

Adrenaline.*†

Cryst. structure:

J. Cailliet, P. Claverie, and B. Pullman, *Acta Cryst.*, 1976, 32B, 2740.

See also Eleventh and Twelfth Supplements.

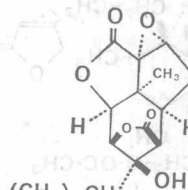
Adriamycin.‡

Review:

S. K. Carter, *J. Natl. Cancer Inst.*, 1975, 55, 1265.

N.M.R. spectrum:

A. Arnone, G. Fronza, R. Mondelli, and A. Viganani, *Tetrahedron Letters*, 1976, 3349.

Aduncin

$C_{16}H_{18}O_8$

MW 294

Constituent of *Dendrobium aduncum*. Needles from MeOH. M.p. 298–300°. $[\alpha]_{D}^{25} -5.8^\circ$ (c, 0.4 in Me₂CO).

L. Gawell and K. Leander, *Phytochemistry*, 1976, 15, 1991.

Aflatoxin B₁. *†‡

Biosynthesis:

D. P. H. Hsieh, R. C. Yao, D. L. Fitzell, and C. A. Reece, *J. Am. Chem. Soc.*, 1976, 98, 1020.

N.M.R. spectrum:

K. G. R. Pachler, P. S. Steyn, R. Vleggaar, P. L. Wessels, and D. B. Scott, *J. C. S. Perkin I*, 1976, 1182.

See also Twelfth Supplement.

Africanol.

Cryst. structure:

R. Karlsson, *Acta Cryst.*, 1976, 32B, 2609.

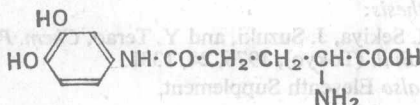
See also Eleventh Supplement.

Afzelin.*

Synthesis:

B. Vermes, L. Farkas, M. Nogradi, H. Wagner, and R. Dirscherl, *Phytochemistry*, 1976, 15, 1320.

Agaridoxin (3,4-Dihydroxy-(γ-L-glutamyl)anilide)



C₁₁H₁₄N₂O₅ MW 254

Constituent of *Agaricus campestris*. M.p. 218–221°. Darkens in air.

Synthesis:

A. Szent-Gyorgyi, R. H. Chung, M. J. Boyajian, M. Tishler, B. H. Arison, E. F. Schoenewaldt, and J. J. Wittick, *J. Org. Chem.*, 1976, 41, 1603.

Agatharesinol. †‡

Synthesis (of Di-Me ether):

A. P. Beracierta and D. A. Whiting, *Tetrahedron Letters*, 1976, 2367.

Erratum p. 25, Fifth Supplement

For Agrimolide read Agrimonolide.

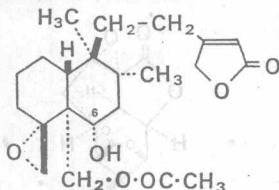
Agrimonolide.

Synthesis:

M. Yamato and K. Hashigaki, *Chem. Pharm. Bull. (Tokyo)*, 1976, 24, 200.

Ajugarin I. See Ac under Ajugarin II.

Ajugarin II



C₂₂H₃₂O₆

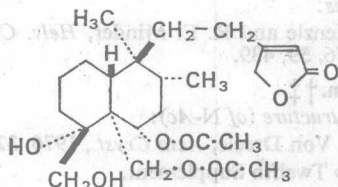
MW 392

Insect antifeedant from the leaves of *Ajuga remota*. M.p. 188–189°.

6-Ac: Ajugarin I. C₂₄H₃₄O₇. MW 434. Insect antifeedant from the leaves of *A. remota*. M.p. 155–157°.

I. Kubo, Y.-W. Lee, V. Balogh-Nair, K. Nakanishi, and A. Chapya, *J. C. S. Chem. Comm.*, 1976, 949.

Ajugarin III



C₂₄H₃₀O₈

MW 452

Insect antifeedant from the leaves of *Ajuga remota*. M.p. 243–245°.

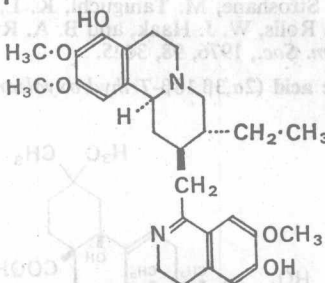
I. Kubo, Y.-W. Lee, V. Balogh-Nair, K. Nakanishi, and A. Chapya, *J. C. S. Chem. Comm.*, 1976, 949.

Akuammigine.*†

Synthesis:

E. Wenkert, C.-J. Chang, H. P. S. Chawla, D. W. Cochran, E. W. Hagaman, J. C. King, and K. Orito, *J. Am. Chem. Soc.*, 1976, 98, 3645.

Alangicine†



Revised structure and synthesis:

T. Fujii, F. Yamada, S. Yoshifuji, S. C. Pakrashi, and E. Ali, *Tetrahedron Letters*, 1976, 2553.

Alanine.*†‡

Synthesis of D and L:

S. Kiyooka, K. Takeshima, H. Yamamoto, and K. Suzuki, *Bull. Chem. Soc. Japan*, 1976, 49, 1897.

Albiflorin. ‡

N.M.R. spectrum:

K. Yamasaki, M. Kaneda, and O. Tanaka, *Tetrahedron Letters*, 1976, 3965.

Alborixin.

See also:

P. Gachon, C. Farges, and A. Kergomard, *J. Antibiotics (Tokyo)*, 1976, 29, 603.

and Twelfth Supplement.

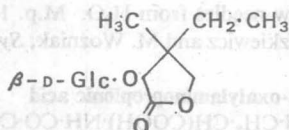
Aldgarose. †‡

Synthesis:

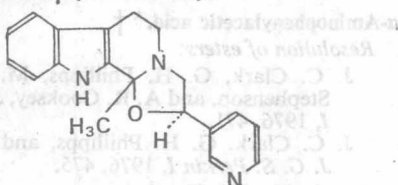
H. Paulsen, B. Sumfleth, and H. Redlich, *Chem. Ber.*, 1976, 109, 1362.

Aleurixanthin. ‡

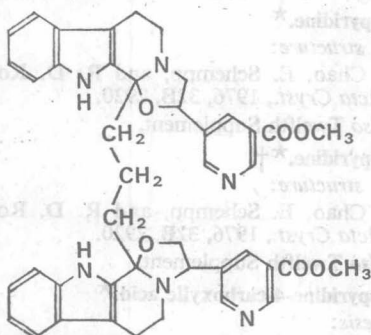
Absolute configuration:

R. Buchecker, N. Arpin, and S. Liaaen-Jensen,
Phytochemistry, 1976, 15, 1013.**Alginoside (3-Ethyl-2-β-D-glucosyloxy-3-methylbutan-4-olide)** $C_{13}H_{22}O_8$

MW 306

Constituent of *Rhodiola algida*. M.p. 192°.T. T. Pangarova, G. G. Zapesochaya, and V. A. Chertkov, *Khim. Prir. Soedin.*, 1975, 11, 334
(*Chem. Abstracts*, 1976, 84, 14658s).**Alkaloid ND-305B ‡ (Naucleonine)**

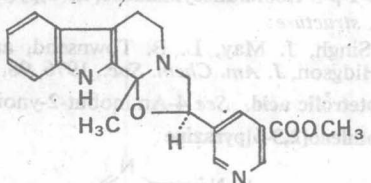
Revised structure and synthesis:

S. MacLean, G. I. Dmitrienko, and A. Szokolcai,
Can. J. Chem., 1976, 54, 1262.**Alkaloid ND-363B**

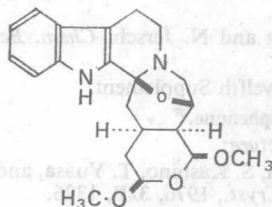
Tentative structure

 $C_{45}H_{45}N_6O_6$

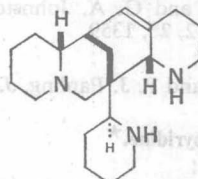
MW 726

Alkaloid from *Nauclea diderrichii*. Syrup.S. MacLean, G. I. Dmitrienko, and A. Szokolcai,
Can. J. Chem., 1976, 54, 1262.**Alkaloid ND-363C ‡ (Naucleonidine)**

Revised structure and synthesis:

S. MacLean, G. I. Dmitrienko, and A. Szokolcai,
Can. J. Chem., 1976, 54, 1262.**Alkaloid ND-370 ‡**

Structure:

S. MacLean, G. I. Dmitrienko, and A. Szokolcai,
Can. J. Chem., 1976, 54, 1262.**Alkaloid R-6** $C_{20}H_{29}N_3$

MW 315

Alkaloid from *Podopetalum ormondii*. M.p. 118–119°.

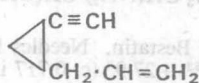
Cryst. structure:

P.-T. Cheng, S. McLean, R. Misra, and S. C. Nyburg, *Tetrahedron Letters*, 1976, 4245.**Alliodorin. ‡**

Structure and synthesis:

K. L. Stevens and L. Jurd, *Tetrahedron*, 1976, 32, 665.**Alloyohimbine. * ‡**

Synthesis:

C. Szántay, K. Honty, L. Töke, and L. Szabó,
Chem. Ber., 1976, 109, 1737.**1-Allyl-2-ethynylcyclopropane** C_8H_{10}

MW 106

W. R. Dolbier, O. T. Garza, and B. H. Al-Sader,
Tetrahedron Letters, 1976, 887.**5-Allyloxy-7-hydroxycoumarin. See Lacoumarin.****Aloenin. ‡**

N.M.R. spectrum:

K. Tori, T. Hirata, O. Kishitani, and T. Suga,
Tetrahedron Letters, 1976, 1311.

Cryst. structure:

T. Hirata, Y. Kushi, T. Suga, and A. Christensen,
Chem. Lett., 1976, 393.

See also Eleventh Supplement.

Alstonerine. ‡

Synthesis:

R. L. Garnick and P. W. Le Quesne, *Tetrahedron Letters*, 1976, 3249.**Ambelline. * ‡**

Cryst. structure:

R. Roques, J. Lapasset, R. Fourme, D. André, and M. Renaud, *Acta Cryst.*, 1976, 32B, 1394.

Amicetose. ††

Synthesis:

I. Dyong and N. Jersch, *Chem. Ber.*, 1976, **109**, 896.

See also Twelfth Supplement.

p-Aminoacetophenone.*

Cryst. structure:

M. Haisa, S. Kashino, T. Yuasa, and K. Akigawa, *Acta Cryst.*, 1976, **32B**, 1326.

4-Aminobut-2-ynoic acid (4-Aminotetrollic acid)



$\text{C}_4\text{H}_5\text{NO}_2$ MW 99

Cryst. from EtOH.Aq. M.p. 300°.

P. M. Beart and G. A. Johnston, *Australian J. Chem.*, 1972, **25**, 1359.

Cryst. structure:

G. P. Jones and P. J. Pauling, *J. C. S. Perkin II*, 1976, 32.

2-Amino-5-chloropyridine.*

Cryst. structure:

A. Kwick, R. Thomas, and T. F. Koetzle, *Acta Cryst.*, 1976, **32B**, 224.

See also Eleventh Supplement.

1-Aminocyclohexanecarboxylic acid.*†

Cryst. structure:

K. K. Chacko, R. Srinivasan, and R. Zand, *J. Cryst. Mol. Struct.*, 1975, **5**, 353.

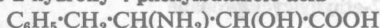
See also Twelfth Supplement.

3-Amino-2,3-dihydrobenzoic acid. See Gabaculine.

6-Amino-5-hydroxycyclohexa-1,3-diene-1-carbaldehyde. See Antibiotic P-3355.

4-Amino-3-hydroxy-2,4-di(hydroxymethyl)tetrahydrofuran. See Xantholamine.

3-Amino-2-hydroxy-4-phenylbutanoic acid



$\text{C}_{10}\text{H}_{13}\text{NO}_3$ MW 195

Component of Bestatin. Needles from H_2O . M.p. 219–221°. $[\alpha]_D^{25} +27.9^\circ$ (c, 0.717 in *N*-HCl).

H. Suda, T. Takita, T. Aoyagi, and H. Umezawa, *J. Antibiotics* (Tokyo), 1976, **29**, 100.

Cryst. structure:

H. Nakamura, H. Suda, T. Takita, T. Aoyagi, H. Umezawa, and Y. Iitaka, *J. Antibiotics* (Tokyo), 1976, **29**, 102.

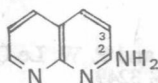
(3-Amino-2-hydroxy-4-phenylbutanoyl)-L-leucine. See Bestatin.

5-Aminomethyl-3-hydroxyisoxazole. ††

Synthesis:

P. Krogsgaard-Larsen and S. B. Christensen, *Acta Chem. Scand.*, 1976, **30B**, 281.

2-Amino-1,8-naphthyridine



$\text{C}_8\text{H}_7\text{N}_3$ MW 145

Needles from xylene. M.p. 143–144°.

W. W. Paudler and T. J. Kress, *J. Org. Chem.*, 1968, **33**, 1384.

E. M. Hawes and D. G. Wibberley, *J. Chem. Soc.*, C, 1967, 1564.

W. Roszkiewicz and M. Woźniak, *Synthesis*, 1976, 691.

3-Amino-1,8-naphthyridine

$\text{C}_8\text{H}_7\text{N}_3$ MW 145

Pale yellow needles from H_2O . M.p. 141–142°.

W. Roszkiewicz and M. Woźniak, *Synthesis*, 1976, 691.

L-3-Amino-2-oxalylaminopropionic acid



$\text{C}_5\text{H}_8\text{N}_2\text{O}_5$ MW 176

Cryst. + $\frac{1}{2}\text{H}_2\text{O}$. M.p. 170–172°. $[\alpha]_D^{21} +14.7^\circ$ (c, 2 in *N*-KOH).

G. Wu, S. B. Bowlus, K. S. Kim, and B. E. Haskell, *Phytochemistry*, 1976, **15**, 1257.

2-Aminopent-4-ynoic acid. See Prop-2-ynylglycine.

 α -Aminophenylacetic acid.*†

Resolution of esters:

J. C. Clark, G. H. Phillipps, M. R. Steer, L. Stephenson, and A. R. Cooksey, *J. C. S. Perkin I*, 1976, 471.

J. C. Clark, G. H. Phillipps, and M. R. Steer, *J. C. S. Perkin I*, 1976, 475.

See also Twelfth Supplement.

2-Aminopyrazine.†

Cryst. structure:

M. Chao, E. Schempp, and R. D. Rosenstein, *Acta Cryst.*, 1976, **32B**, 288.

2-Aminopyridine.*

Cryst. structure:

M. Chao, E. Schempp, and R. D. Rosenstein, *Acta Cryst.*, 1976, **32B**, 2920.

See also Twelfth Supplement.

3-Aminopyridine.*†

Cryst. structure:

M. Chao, E. Schempp, and R. D. Rosenstein, *Acta Cryst.*, 1976, **32B**, 2920.

See also Twelfth Supplement.

3-Aminopyridine-4-carboxylic acid.*

Synthesis:

J.-V. Dejardin and C.-L. Lapière, *Bull. Soc. Chim. France*, 1976, 530.

2-Aminopyrimidine.*

Cryst. structure:

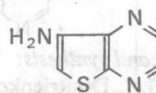
J. Scheinbeim and E. Schempp, *Acta Cryst.*, 1976, **32B**, 607.

4-Amino-1- β -D-ribofuranosylimidazo[4,5-*c*]pyridine. ††

Cryst. structure:

P. Singh, J. May, L. B. Townsend, and D. J. Hidgson, *J. Am. Chem. Soc.*, 1976, **98**, 825.

4-Aminotetrollic acid. See 4-Aminobut-2-ynoic acid.

7-Aminothieno[2,3-*b*]pyrazine

$\text{C}_6\text{H}_5\text{N}_3\text{S}$

MW 151

Pale yellow cryst. M.p. 81–82°.

S. W. Schneller, F. W. Clough, and L. E. Hardee, *J. Heterocyclic Chem.*, 1976, 13, 273.

Ampicillin.*†

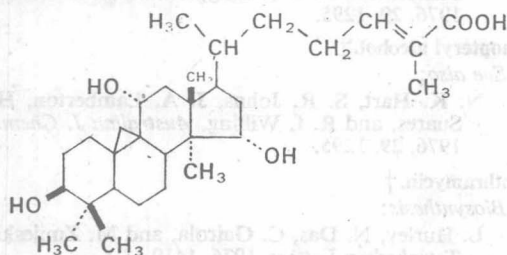
Synthesis:

F. Kaifež, T. Kovač, M. Mihalič, B. Belin, and V. Sunjić, *J. Heterocyclic Chem.*, 1976, 13, 561.

Structure:

M. O. Boles and R. J. Girven, *Acta Cryst.*, 1976, 32B, 2279.

Ananasic acid (3β,11α,15α-Trihydroxycycloart-24-en-26-oic acid)



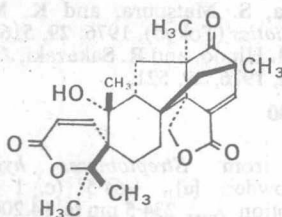
$C_{30}H_{48}O_5$ MW 488

Constituent of pineapple stems. Prisms from MeOH. M.p. 194–197.5°. $[\alpha]_D^{25} +4.23^\circ$.

Me ester: $C_{31}H_{50}O_5$ MW 502. M.p. 131–133°.

R. H. Takata and P. J. Scheuer, *Tetrahedron*, 1976, 32, 1077.

Andibenin

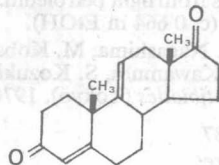


$C_{25}H_{30}O_6$ MW 426

Metabolite of *Aspergillus varicolor*. Cryst. from MeOH. M.p. 218–220°. $[\alpha]_D^{25} -277^\circ$. Light absorption: λ_{max} 249 sh. (log ϵ , 3.59) and 312 nm (2.91). Cryst. structure:

A. W. Dunn, R. A. W. Johnstone, B. Sklarz, and T. J. King, *J. C. S. Chem. Comm.*, 1976, 270.

Androsta-4,9(11)-diene-3,17-dione



$C_{19}H_{24}O_2$ MW 284

Cryst. from Et₂O. M.p. 202–204°. $[\alpha]_D^{25} +218.5^\circ$ (c, 0.5 in CHCl₃).

U. Eder, G. Sauer, G. Haffer, J. Ruppert, R. Wiechert, A. Fürst, and W. Meier, *Helv. Chim. Acta*, 1976, 59, 999.

5α-Androstane.*

N.M.R. spectrum:

H. Eggert, C. L. VanAntwerp, N. S. Bhacca, and C. Djerassi, *J. Org. Chem.*, 1976, 41, 71.

5α-Androstan-3α-ol.*

N.M.R. spectrum:

H. Eggert, C. L. VanAntwerp, N. S. Bhacca, and C. Djerassi, *J. Org. Chem.*, 1976, 41, 71.

5α-Androstan-3β-ol.*

N.M.R. spectrum:

H. Eggert, C. L. VanAntwerp, N. S. Bhacca, and C. Djerassi, *J. Org. Chem.*, 1976, 41, 71.

5α-Androstan-15α-ol.†

N.M.R. spectrum:

H. Eggert, C. L. VanAntwerp, N. S. Bhacca, and C. Djerassi, *J. Org. Chem.*, 1976, 41, 71.

5α-Androstan-15β-ol.†

N.M.R. spectrum:

H. Eggert, C. L. VanAntwerp, N. S. Bhacca, and C. Djerassi, *J. Org. Chem.*, 1976, 41, 71.

5α-Androstan-17α-ol.*

N.M.R. spectrum:

H. Eggert, C. L. VanAntwerp, N. S. Bhacca, and C. Djerassi, *J. Org. Chem.*, 1976, 41, 71.

5α-Androstan-17β-ol.*†

N.M.R. spectrum:

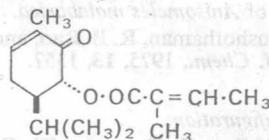
H. Eggert, C. L. VanAntwerp, N. S. Bhacca, and C. Djerassi, *J. Org. Chem.*, 1976, 41, 71.

Ertatum p. 239, Main Work.

Angelica acid.*

This should read cis-2,3-Dimethylacrylic acid.

5-(Angeloyloxy)carvotagetonone

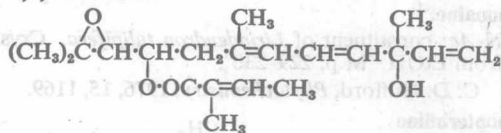


$C_{15}H_{22}O_3$ MW 250

Constituent of the roots of *Pluchea odorata*. Oil. $[\alpha]_{589}^{24} -117^\circ$, $[\alpha]_{578}^{24} -122.5^\circ$, $[\alpha]_{546}^{24} -139.5^\circ$, $[\alpha]_{436}^{24} -239^\circ$, $[\alpha]_{365}^{24} -351^\circ$ (c, 1.8 in CHCl₃).

F. Bohlmann and C. Zdero, *Chem. Ber.*, 1976, 109, 2653.

9-Angeloyloxy-10,11-epoxy-3,7,11-trimethyldodeca-1,4,6-trien-3-ol



$C_{20}H_{30}O_4$ MW 334

Constituent of *Brickellia veronicaefolia*. B.p. 130°/0.1 mm.

F. Bohlmann and C. Zdero, *Chem. Ber.*, 1976, 109, 1436.

Angolensin.*††

2-Me ether: $C_{17}H_{18}O_4$ MW 286. Constituent of the heartwood of *Pericopsis* spp. Oil. $[\alpha]_D^{24} +5.3^\circ$ (CHCl₃). Light absorption: λ_{max} 270 (log ϵ , 4.1) and 315 nm (3.98).

M. A. Fitzgerald, P. J. M. Gunning, and D. M. X. Donnelly, *J. C. S. Perkin I*, 1976, 186.

Angustidine. ‡**Synthesis:**

I. Ninomiya, T. Naito, and H. Takasugi, *J. C. S. Perkin I*, 1976, 1865.

See also Eleventh Supplement.

Angustine. ‡**Synthesis:**

T. Kametani, M. Takeshita, M. Ihara, and K. Fukumoto, *J. Org. Chem.*, 1976, 41, 2542.

See also Eleventh and Twelfth Supplements.

Angustmycin A. ★ ‡**Synthesis:**

E. J. Prisbe, J. Smejkal, J. P. H. Verheyden, and J. G. Moffatt, *J. Org. Chem.*, 1976, 41, 1836.

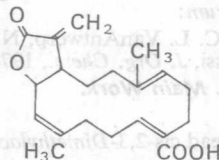
Angustoline. ‡**Synthesis:**

I. Ninomiya, T. Naito, and H. Takasugi, *J. C. S. Perkin I*, 1976, 1865.

See also Eleventh and Twelfth Supplements.

Aniline-*o*-sulphonic acid. ★**Synthesis:**

V. N. R. Pillai, *Chem. Ind. (London)*, 1976, 456.

Anisomelic acid

C₂₀H₂₆O₄ MW 330

Constituent of *Anisomeles malabarica*. M.p. 155°.

K. K. Purushothaman, R. B. Rao, and K. Kalyani, *Indian J. Chem.*, 1975, 13, 1357.

Ankaflavin. ‡**Absolute configuration:**

W. B. Whalley, G. Ferguson, W. C. Marsh, and R. J. Restivo, *J. C. S. Perkin I*, 1976, 1366.

Ankorine. ‡**Structure and synthesis:**

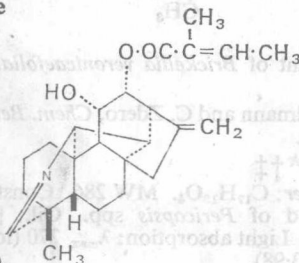
C. Szantay, E. Szentirmay, L. Szabo, and J. Tamas, *Chem. Ber.*, 1976, 109, 2420.

See also Eleventh and Twelfth Supplements.

Anonaine. ‡

N-Ac: constituent of *Liriodendron tulipifera*. Cryst. from EtOH. M.p. 229–230°.

C. D. Hufford, *Phytochemistry*, 1976, 15, 1169.

Anopterimine

C₂₅H₃₃NO₃

MW 395

Alkaloid from *Anopterus macleayanus*. Prisms from Me₂CO. Mp. 235–238°. [α]_D +106° (c, 0.6 in CHCl₃).

N-Oxide: alkaloid from *A. macleayanus*. Needles from Me₂CO. M.p. 233–235°. [α]_D +95° (c, 1.1 in CHCl₃).

N. K. Hart, S. R. Johns, J. A. Lamberton, H. Soares, and R. I. Willing, *Australian J. Chem.*, 1976, 29, 1319.

Anopterine. ‡**See also:**

N. K. Hart, S. R. Johns, J. A. Lamberton, H. Soares, and R. I. Willing, *Australian J. Chem.*, 1976, 29, 1295.

Anopteryl alcohol. ‡**See also:**

N. K. Hart, S. R. Johns, J. A. Lamberton, H. Soares, and R. I. Willing, *Australian J. Chem.*, 1976, 29, 1295.

Anthramycin. ‡**Biosynthesis:**

L. Hurley, N. Das, C. Gairola, and M. Zmijeski, *Tetrahedron Letters*, 1976, 1419.

See also Eleventh and Twelfth Supplements.

Antibiotic 333-25.

Antibiotic from *Bacillus circulans*. Amorph. powder. No definite m.p. [α]_D²² –65.6° (c, 0.506 in 0.5N-HCl).

B, HCl: m.p. 215–220° decomp.

J. Shoji, H. Hinoo, Y. Wakisaka, K. Koizumi, M. Mayama, S. Matsuura, and K. Matsumoto, *J. Antibiotics (Tokyo)*, 1976, 29, 516.

J. Shoji, H. Hinoo, and R. Sakazaki, *J. Antibiotics (Tokyo)*, 1976, 29, 521.

Antibiotic A-130

C₄₇H₇₈O₁₃ MW 850

Antibiotic from *Streptomyces hygroscopicus*.

Amorph. powder. [α]_D +64.5° (c, 1 in CHCl₃).

Light absorption: λ_{max} 234.5 nm (ε, 14,200) in EtOH.

Na salt: needles from Me₂CO.Aq. M.p. 227–231°.

[α]_D +97.9° (c, 1 in CHCl₃).

T. Kubota, H. Hinoh, M. Mayama, K. Motokawa, and Y. Yasuda, *J. Antibiotics (Tokyo)*, 1975, 28, 931.

Antibiotic A-218

C₄₆H₈₀O₁₅ MW 872

Antibiotic from *Streptomyces hygroscopicus*.

Amorph. powder.

Na salt: prisms from light petroleum. M.p. 187–188°.

[α]_D²³ +52.3° (c, 0.664 in EtOH).

N. Tsuji, K. Nagashima, M. Kobayashi, Y. Wakisaka, Y. Kawamura, S. Kozuki, and M. Mayama, *J. Antibiotics (Tokyo)*, 1976, 29, 10.

Antibiotic A23187.**Cryst. structure:**

G. D. Smith and W. L. Duax, *J. Am. Chem. Soc.*, 1976, 98, 1578.

See also:

M. O. Chaney, N. D. Jones, and M. Debono, *J. Antibiotics (Tokyo)*, 1976, 29, 424.

and Eleventh Supplement.

Antibiotic A30641 $C_{12}H_{19}ClN_2O_5S_2$

MW 360.5

Antibiotic from *Aspergillus tamarii*. Amorph. solid. M.p. 160–172° decomp. $[\alpha]_D^{25} +73^\circ$ (c, 1 in MeOH).

D. H. Berg, R. P. Massing, M. M. Hoeft, L. D. Boeck, and R. L. Hamill, *J. Antibiotics* (Tokyo), 1976, 29, 394.

Antibiotic AB-74 $C_{21}H_{39}N_5O_{13}$

MW 541

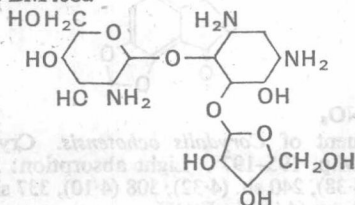
Antibiotic from *Streptomyces aquacanus*. Powder. M.p. 164–175°. $[\alpha]_D +18.4^\circ$ (c, 1 in H_2O).

A. Tamura, R. Furuta, and S. Naruto, *J. Antibiotics* (Tokyo), 1976, 29, 590.

Antibiotic B-17

Antibiotic from *Bacillus thiaminolyticus*. White powder. M.p. 123–131°. $[\alpha]_D -54.8^\circ$.

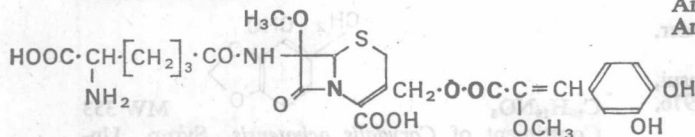
K. Arima, H. Okazaki, and T. Beppu, Japan. Kokai 75,155,695 (*Chem. Abstracts*, 1976, 85, 31608p).

Antibiotic BM408a $C_{17}H_{33}N_5O_{11}$

MW 455

Antibiotic from *Streptomyces canus*. White powder. $[\alpha]_D^{25} +30^\circ$.

J. P. Kirby, D. B. Borders, and J. H. Korshalla, U.S.P. 3,928,317 (*Chem. Abstracts*, 1976, 84, 149200g).

Antibiotic C-2801X $C_{25}H_{29}N_2O_{12}S$

MW 595

Antibiotic from *Streptomyces heteromorphus* and *S. panayensis*.

Na salt: white powder. $[\alpha]_D^{25} +124.4^\circ$ (c, 0.5 in H_2O).

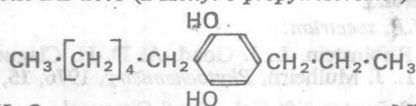
H. Fukase, T. Hasegawa, K. Hatano, H. Iwasaki, and M. Yoneda, *J. Antibiotics* (Tokyo), 1976, 29, 113.

H. Fukase and H. Iwasaki, *Bull. Chem. Soc. Japan*, 1976, 49, 767.

Antibiotic C-7819B

Antibiotic from *Streptomyces parvulus*. Needles from Me_2CO . M.p. 90–92°. $[\alpha]_D^{25} -70^\circ$.

A. Imada, Y. Nozaki, T. Hasegawa, T. Matsuno, and K. Domoto, Japan. Kokai 76 35,495 (*Chem. Abstracts*, 1976, 85, 121785y).

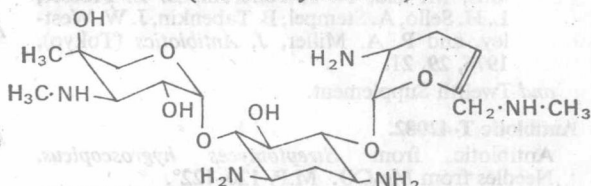
Antibiotic DB-2073 (2-Hexyl-5-propylresorcinol) $C_{15}H_{24}O_2$

MW 236

Antibiotic from *Pseudomonas* sp. M.p. 86–88°. Light absorption: λ_{max} 212 (ϵ , 26,400), 272 (1160), and 281 nm (1060) in MeOH.

N. Kanda, N. Ishizaki, N. Inoue, M. Oshima, A. Handa, and T. Kitahara, *J. Antibiotics* (Tokyo), 1975, 28, 935.

T. Kitahara and N. Kanda, *J. Antibiotics* (Tokyo), 1975, 28, 943.

Antibiotic DE-3936. See Lonomycin.**Antibiotic G-52 (6'-N-Methylisomicin)** $C_{20}H_{39}N_5O_7$

MW 461

Antibiotic produced by *Micromonospora zionensis*. $[\alpha]_D^{20} +157.9^\circ$.

J. A. Marquez, G. H. Wagman, R. T. Testa, J. A. Waitz, and M. J. Weinstein, *J. Antibiotics* (Tokyo), 1976, 29, 483.

P. J. L. Daniels, R. S. Jaret, T. L. Nagabhushan, and W. N. Turner, *J. Antibiotics* (Tokyo), 1976, 29, 488.

Antibiotic G-418 $C_{20}H_{40}N_4O_{10}$

MW 496

Antibiotic from *Micromonospora rhodorangea*. M.p. 138–144°. $[\alpha]_D +140^\circ$.

M. J. Weinstein, G. H. Wagman, R. T. Testa, and J. A. Marquez, U.S.P. 3,959,254 (*Chem. Abstracts*, 1976, 85, 44911g).

Antibiotic K-41 $C_{48}H_{82}O_{19}$

MW 962

Antibiotic from *Streptomyces hygroscopicus*. Amorph. powder.

Na salt: prisms from light petroleum. M.p. 196–198° decomp. $[\alpha]_D^{25} +1.9^\circ$ (c, 1.017 in MeOH).

N. Tsuji, K. Nagashima, M. Kobayashi, Y. Wakisaka, Y. Kawamura, S. Kozuki, and M. Mayama, *J. Antibiotics* (Tokyo), 1976, 29, 10.

Antibiotic KM-214 $C_{35}H_{54}O_9$

MW 618

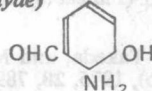
Antibiotic from *Bacillus aurantinus*. Yellow powder. M.p. 139–140°. $[\alpha]_D^{25} +126^\circ$ (c, 1 in MeOH).

S. Omura, T. Nishikiori, R. Oiwa, Y. Iwai, R. Masuma, and M. Katagiri, *J. Antibiotics* (Tokyo), 1976, 29, 477.

Antibiotic MX-A

Antibiotic from *Bacillus circulans*. Decomp. 236–239°. $[\alpha]_D^{20} -59^\circ$.

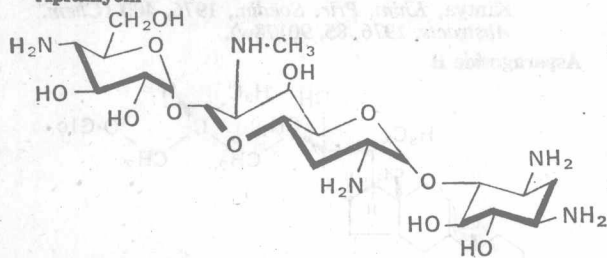
Y. Arai, I. Nogami, and T. Yamano, Japan. Kokai 76 15,692 (*Chem. Abstracts*, 1976, 85, 31611j).

Antibiotic P-3355 (6-Amino-5-hydroxycyclohexa-1,3-diene-1-carbaldehyde) $C_7H_9NO_2$

MW 139

8'-Apo- β -caroten-3-ol. See β -Citraurine.

Apramycin



$C_{21}H_{41}N_5O_{11}$

MW 539

Antibiotic produced by *Streptomyces tenebrarius*. Cryst. + H_2O from EtOH.Aq. M.p. 245–247°. $[\alpha]_D^{25} -164^\circ$ (c, 1 in H_2O).

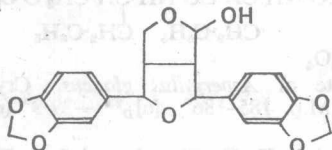
S. O'Connor, L. K. T. Lam, N. D. Jones, and M. O. Chaney, *J. Org. Chem.*, 1976, 41, 2087.

Apthosin. ‡

Synthesis:

A. J. Bryan, J. A. Elix, and S. Norfolk, *Australian J. Chem.*, 1976, 29, 1079.

Aptosimol



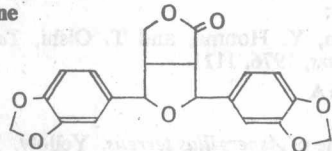
$C_{30}H_{18}O_7$

MW 370

Constituent of *Aptosimum spinescens*. Needles. M.p. 158°. $[\alpha]_D^{20} +34^\circ$ (c, 2 in Me_2CO). Light absorption: λ_{max} 237 and 287 nm in MeOH.

C. H. Brieskorn and H. Huber, *Tetrahedron Letters*, 1976, 2221.

Aptosimone



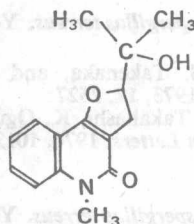
$C_{30}H_{18}O_7$

MW 368

Constituent of *Aptosimum spinescens*. Needles. M.p. 123°. $[\alpha]_D^{20} +70^\circ$ (c, 2 in $CHCl_3$). Light absorption: λ_{max} 238 and 286.5 nm in MeOH.

C. H. Brieskorn and H. Huber, *Tetrahedron Letters*, 1976, 2221.

Araliopsine



$C_{15}H_{17}NO_3$

MW 259

Alkaloid from the root bark of *Araliopsis soyauxii*. Beige cryst. from $CHCl_3$. M.p. 152°. $[\alpha]_D +40^\circ$ (c, 1 in $CHCl_3$). Light absorption: λ_{max} 232 (log ϵ , 4.54), 286 (3.87), 296 (3.94), 319 (3.88), and 331 nm (3.80) in EtOH.

J. Vaquette, M. S. Hifnawy, J. L. Pousset, A. Fournet, A. Bouquet, and A. Cavé, *Phytochemistry*, 1976, 15, 743.

Arecoline. ★

N.M.R. spectrum:

P. R. Srinivasan and R. L. Lichter, *Org. Magn. Reson.*, 1976, 8, 198.

See also Twelfth Supplement.

Argemonine. ††

Cryst. structure:

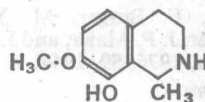
T. Kaneda, N. Sakabe, and J. Tanaka, *Bull. Chem. Soc. Japan*, 1976, 49, 1263.

Arglecin. †

N.M.R. spectrum:

J. C. MacDonald, G. G. Bishop, and M. Mazurek, *Tetrahedron*, 1976, 32, 655.

Arizonine (1,2,3,4-Tetrahydro-8-hydroxy-7-methoxy-1-methylisoquinoline)



$C_{11}H_{15}NO_2$

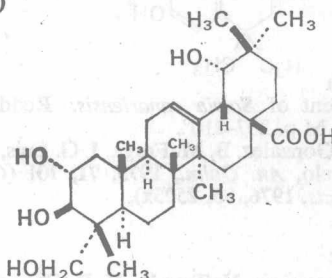
MW 193

Alkaloid from *Carnegiea gigantea*. Cryst. from MeOH-Et₂O. M.p. 207–209°.

Synthesis:

J. G. Bruhn and J. Lundström, *Lloydia*, 1976, 39, 197.

Arjungenin (2 α ,3 β ,19 α ,23-Tetrahydroxyolean-12-en-28-oic acid)



$C_{30}H_{48}O_6$

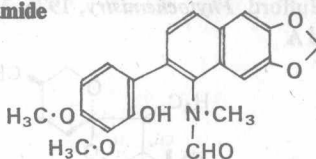
MW 504

Constituent of *Terminalia arjuna*. Cryst. from EtOH.Aq. M.p. 293–294° decomp. $[\alpha]_D +29^\circ$ (c, 2.6 in EtOH).

Me ester: $C_{31}H_{50}O_6$. MW 518. M.p. 162–165°.

T. Honda, T. Murae, T. Tsuyuki, and T. Takahashi, *Chem. Pharm. Bull. (Tokyo)*, 1976, 24, 178.

Arnottianamide



$C_{21}H_{19}NO_6$

MW 381

Constituent of *Xanthoxylum* spp. Prisms. M.p. 267–269°. Light absorption: λ_{max} 236 (log ϵ , 4.73), 280 sh. (4.01), 321 sh. (3.63), 324 (3.65), and 332 nm (3.81) in EtOH.

H. Ishii, T. Ishikawa, S.-T. Lu, and I.-S. Chen, *Tetrahedron Letters*, 1976, 1203.