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ALKALOIDAL PLANTS OF THE APOCYNACEAE

The Apocynaceae is a large family of plants, many of which contain alkaloids. The alkaloids of the Apocynaceae have been studied by many investigators. The following is a brief summary of the alkaloids found in the various genera of the family.

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ALKALOIDAL PLANTS OF THE APOCYNACEAE¹

ALTHOUGH there has always been a keen interest in alkaloids and in the plants which contain them, recently there has been a particular resurgence of interest, due largely to the medical uses of the *Rauvolfia* alkaloids. Alkaloid-bearing plants are now being sought more assiduously than ever. We are preparing as complete a compilation as possible of all plants in which alkaloids have been found. To our knowledge such a list has not been published. It should serve as a guide in the further exploration of the plant world.

Several people have already consulted the list for the Apocynaceae and, because of the current widespread interest in the alkaloids of this family, have urged that we publish our data on it in advance of the whole compilation. The compilation consists of two tables with certain spacesaving devices. In the first the plants are listed alphabetically. The alkaloids are listed by numbers which refer to table 2. The citations are given not to the original paper in most cases, but to the most generally accessible source where the original may be found. The plant names have of necessity been taken from the chemical literature. Some of them are no longer in good usage botanically. Without voucher specimens, however, adequate corrections cannot be made, and except for verification of spelling and authorities, the names must stand as the chemical workers gave them. The second table lists the named alkaloids alphabetically, with synonyms where necessary.

We have aimed to make the list complete through 1955 but have included the more accessible items of 1956. If readers know of gaps in the list, we would appreciate hearing from them.

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TABLE 1

RECORDED OCCURRENCE OF ALKALOIDS IN APOCYNACEAE. ALKALOID NUMBERS
REFER TO TABLE 2. "UNN." MEANS UNNAMED

Code for references:

AJP	—American Journal of Pharmacy.
BA	—Biological Abstracts.
CA	—Chemical Abstracts.
Chopra	—Chopra, R. N., Badhwar, R. L. and Ghosh, S. Poisonous Plants of India. Vol. 1. Indian Council of Agricultural Research. Scientific Monograph No. 17. Manager of Publications, Delhi, 1949.
CI	—Chemistry and Industry.
H	—Henry, T. A. The Plant Alkaloids. Fourth Ed., 1949. Blakiston, Philadelphia.
Helv	—Helvetica Chimica Acta.
JACS	—Journal of the American Chemical Society.
JAPA	—Journal of the American Pharmaceutical Association, Scientific Edition.
JCS	—Journal of the Chemical Society (London).
JOC	—Journal of Organic Chemistry.
Klein	—Klein, G. Handbuch der Pflanzenanalyse. Vol. IV, 1933. Julius Springer, Jena.
Merck	—Merck Index. Ed. 6, 1952. Merck and Co., Rahway, New Jersey.
M-H	—Manske, R. H. F., and Holmes, H. L. The Alkaloids. Five vol., 1950-1955. Academic Press, New York.
Sok	—Sokolov, V. S. Alkaloid Bearing Plants in U. S. S. R. Akad. Nauk SSSR, Moscow.
Wall 4	—Wall, M. E., Fenske, C. S., Willaman, J. J., Correll, D. S., Schubert, B. G. and Gentry, H. S. Steroidal Sapogenins XXVI. Supplementary Table of Data for Steroidal Sapogenins XXV. ARS-73-4. 1955 (processed). U. S. Dept. Agr., Eastern Utilization Research Branch, Philadelphia.
Wall 363	—Wall, M. E., Krider, M. M., Krewson, C. F., Eddy, C. R., Willaman, J. J., Correll, D. S. and Gentry, H. S. Steroidal Sapogenins XIII. Supplementary Table of Data for Steroidal Sapogenins VII. AIC-363. 1954 (processed). U. S. Dept. Agr., Eastern Utilization Branch, Philadelphia.

We —Wehmer, C. Die Pflanzenstoffe. Second Ed., 2 vols., 1929, 1931.
Fischer, Jena.

We Sup —Wehmer, C. Die Pflanzenstoffe. Ergänzungsband zur zweiten
Auflage. 1935. Fischer, Jena.

Webb 232—Webb, L. J. Guide to the Medicinal and Poisonous Plants of
Queensland Bull. 232. 1948. Council for Scientific and
Industrial Research, Australia.

Webb 241—Webb, L. J. Australian Phytochemical Survey. Part I. Bull.
241. 1949. Commonwealth Scientific and Industrial Research
Organization, Australia.

Webb 268—Webb, L. J. Australian Phytochemical Survey. Part II. Bull.
268. 1952. Commonwealth Scientific and Industrial Research
Organization, Australia.

Webb PS—Webb, L. J. A Preliminary Phytochemical Survey of Papua-New
Guinea. Pacific Science 9:430 (1955).

Code for plant parts:

b —bark	s —stem, twig
fr—fruit	sd—seed
l —leaves	w —whole plant above ground
r —root	wd—wood
rb—root bark	

Species	Plant part	Alkaloids	References
Acokanthera abyssinica (Hochst.) K. Schum.	—	1	We 978
Alstonia actinophylla (Cunn.) K. Schum.	l, b	unn.	Webb 241
Alstonia angustiloba Miq.	b	44	H 716
Alstonia congensis Engl.	b	43	H 716
	b	44	CA 49:14266
Alstonia constricta F. Muell.	b	17, 18, 19, 84, 85	H 716
	rb	103	CA 49:16334
Alstonia gilletii DeWild.	b	44	H 716
Alstonia macrophylla Wall.	b	72, 73, 122	H 716
Alstonia muelleriana Domin	b, l	unn.	Webb 268
Alstonia scholaris (L.) R. Br.	b	42, 43, 44, 45	H 716
	—	19, 84	Sok 129
Alstonia sericea Blume	l, b	unn.	We 985
Alstonia somersetensis F. M. Bailey	b	72, 122	H 716
Alstonia spatulata Blume	b	44	H 716

Species	Plant part	Alkaloids	References
<i>Alstonia spectabilis</i> R. Br.	b	16a, 42, 44, 45	H 716
<i>Alstonia verticillosa</i> F. Muell.	b	44	H 716
<i>Alstonia villosa</i> Blume	b	122	H 716
<i>Alstonia</i> spp.	b	44	JCS 1932:2626
<i>Alyxia ilicifolia</i> F. Muell.	—	unn.	Webb PS
<i>Alyxia ruscifolia</i> R. Br.	l	unn.	Webb 268
<i>Alyxia stellata</i> Roem. and Schult.	l, fr	unn.	Webb 241
<i>Alyxia</i> sp.	b	unn.	We 988
<i>Amsonia ciliata</i> Walt.	l	unn.	Webb 241
<i>Amsonia elliptica</i> (Thunb.) Roem. and Schult.	w	unn.	Wall 363
<i>Amsonia tabernaemontana</i> Walt.	r	20	CA 45:1730
<i>Aspidosperma album</i> (Vahl) Benoist	sd	114	CA 49:9670
<i>Aspidosperma australe</i> Muell. Arg.	b	unn.	CA 48:13958
<i>Aspidosperma excelsum</i> Benth.	b	25	BA 22:22299
<i>Aspidosperma megalocarpon</i> Muell. Arg.	—	unn.	CA 49:1280
<i>Aspidosperma oblongum</i> A. DC.	b	unn.	CA 48:13958
<i>Aspidosperma peroba</i> Saldanha da Gama	b	25	Klein 792
<i>Aspidosperma polyneuron</i> Muell. Arg.	b	24	M-H II 422
<i>Aspidosperma pyricollum</i> Muell. Arg.	s	25	Klein 792
<i>Aspidosperma quebracho</i> Griseb.	b	23	Merck
	b	22, 25, 91, 120, 132	H 511
<i>Aspidosperma quebracho-blanco</i> Schlecht.	b	25	M-H II 422
	b	22	Merck
	b	23, 24, 52	Quart. Rev. 10:139
<i>Aspidosperma quirandy</i> Hassler	b	22, 25, 49, 92	M-H II 422
<i>Aspidosperma sessiliflorum</i> Muell. Arg.	l, b	25	Klein
<i>Aspidosperma ulei</i> Markgraf	—	unn.	CA 49:7730
<i>Aspidosperma</i> sp.	—	unn.	BA 23:1939
<i>Aspidosperma</i> spp.	b	78, 79	M-H II 422
<i>Calpicarpum roxburghii</i> G. Don	—	unn.	M-H V 315
<i>Carissa ovata</i> R. Br.	b	unn.	Webb 241
<i>Cerbera ahouai</i> L.	—	27	Sok 133
<i>Chilocarpus australis</i> F. Muell.	l	unn.	Webb 241
<i>Chonemorpha macrophylla</i> (Roxb.) G. Don	rb	31	CA 49:15926
<i>Cyrtosiphonia madurensis</i> Teijsm. and Binn.	—	unn.	We 985
<i>Cyrtosiphonia spectabilis</i> Miq.	—	unn.	Klein 741
<i>Elytropus chilensis</i> Muell. Arg.	l, s, r	unn.	CA 47:3519
<i>Ervatamia angustisepala</i> (R. Br.) Domin (<i>Tabernaemontana orientalis</i> var. <i>angustisepala</i> Benth.)	l, s	unn.	Webb 268

Species	Plant part	Alkaloids	References
<i>Ervatamia orientalis</i> (R. Br.) Turrill (<i>Tabernaemontana orientalis</i> R. Br.)	l, s	unn.	Webb 241
<i>Ervatamia pubescens</i> Markgraf	l	unn.	Webb 268
<i>Ervatamia</i> sp.	—	unn.	Webb PS
<i>Forsteronia pubescens</i> A. DC.	l	46a	Klein 795
<i>Funtumia</i> spp.	l, s, r	unn.	Wall 4
<i>Geissospermum sericeum</i> (Sag.) Benth. & Hook.	—	47	CA 49:4234
<i>Geissospermum vellosii</i> Allem.	b	47	H 735
	b	121	Klein 799
	—	82	Sok 129
	b	81	Klein 799
	b	81, 121	H 736
<i>Gonioma kamassi</i> E. Mey.	b	63	CA 45:9222
	—	unn.	H 781
<i>Haplophyton cimicidum</i> A. DC.	w	32, 48	CA 47:6594
<i>Holarrhena africana</i> A. DC.	b	35	H 742
<i>Holarrhena antidysenterica</i> (Roxb.) Wall.	b	33, 34, 35, 36, 37, 38, 50, 51, 57, 69, 70, unn. (2)	M-H V 313
	sd	76a	Klein 789
<i>Holarrhena congolensis</i> Stapf	b, l	35, 50	H 742
<i>Holarrhena febrifuga</i> Klotzsch	b	35	H 742
<i>Holarrhena wulfsbergii</i> Stapf	b	35	H 742
<i>Hunteria corymbosa</i> Roxb.	b	unn.	We 985
<i>Hunteria eburnea</i> Pichon	b	unn.	Compt. rend. 240:1470
<i>Kickxia africana</i> Benth.	sd	unn.	We Sup 113
<i>Kickxia arborea</i> Blume	b	unn.	We 988
<i>Kopsia albiloba</i> Boerl.	—	67	CA 48:1387
<i>Kopsia arborea</i> Blume	—	unn.	M-H V 315
<i>Kopsia flava</i> Blume	—	67	Sok 129
	—	unn.	M-H V 315
<i>Kopsia fruticosa</i> (Ker) A. DC.	l	67	CA 44:2997
<i>Kopsia longiflora</i> Merrill	b	64, 66, 68	CA 50:1056
	l	65	CA 50:1056
<i>Kopsia roxburghii</i> Wehmer	sd	unn.	We 989
<i>Kopsia</i> sp. nov.	l, s	unn.	Webb 268
<i>Leuconotis eugenifolius</i> (Wall.) A. DC.	b	unn.	We 981
<i>Lochnera</i> (<i>Vinca</i>) lancea (Boj.) K. Schum.	l, s	136	CA 49:5496
<i>Lochnera</i> (<i>Vinca</i>) pusilla (Murr.) K. Schum.	—	126	Chopra 652
<i>Melodinus acutiflorus</i> F. Muell.	l, b	unn.	Webb 241
<i>Melodinus australis</i> Maiden and Betche	l, b	unn.	Webb 268

Species	Plant part	Alkaloids	References
<i>Melodinus bacellianus</i> (F. Muell.) S. T. Blake	1, b	unn.	Webb 268
<i>Melodinus guilfoylei</i> F. Muell.	1	unn.	Webb 268
<i>Melodinus laevigatus</i> Blume	1, b, sd	unn.	Webb 268
<i>Melodinus murpe</i> F. M. Bailey	1	unn.	Chopra 653
<i>Nerium oleander</i> L.	—	87a	Webb 268
<i>Ochrosia ackeringae</i> Miq.	b	unn.	Klein 741
<i>Ochrosia acuminata</i> Trimen	b	unn.	We 989
<i>Ochrosia calocarpa</i> Miq.	b	unn.	We 989
<i>Ochrosia coccinea</i> Miq.	b	unn.	We 989
<i>Ochrosia cowleyi</i> F. M. Bailey	1	unn.	We 989
<i>Ochrosia elliptica</i> Labill.	b	unn.	Webb 268
<i>Ochrosia kilneri</i> F. Muell.	1	unn.	H 781
<i>Ochrosia moorei</i> F. Muell.	1, b	unn.	Webb 268
<i>Ochrosia poweri</i> F. M. Bailey	1, s, b	unn.	Webb 268
<i>Ophioxylon serpentinum</i> L. (<i>Rauvolfia</i> s.)	rb	unn.	We 981
<i>Ophioxylon trifoliatum</i> Gaertn. (<i>Rauvolfia</i> s.)	rb	unn.	We 981
<i>Parsonia buruensis</i> (Teijsm. and Binn.) Boerl.	b, wd	unn.	Webb 268
<i>Parsonia eucalyptifolia</i> F. Muell. (<i>Lyonsia eucalyptifolia</i> F. Muell.)	1, s	unn.	Webb 241
<i>Parsonia latifolia</i> (Benth.) S. T. Blake	1, b	unn.	Webb 268
<i>Parsonia lilacina</i> F. Muell.	1, s	unn.	Webb 268
<i>Parsonia minahassae</i> Koord.	1, b	unn.	We 981
<i>Parsonia straminea</i> F. Muell.	1, b	unn.	Webb 268
<i>Parsonia velutina</i> R. Br.	1, s fl	unn.	Webb 241 Webb 268
<i>Picralima klaineana</i> Pierre	sd	6, 7, 8, 9, 10, 11, 12, 13	H 760
<i>Picralima nitida</i> Th. & H. Dur.	sd	86, 87	M-H V 320
	sd	7, 9, 10, 13, 86, 87	CA 46:2556
	—	11	Quart. Rev. 10:141
<i>Prestonia amazonica</i> (Benth.) Macbr. (<i>Haemadictyon</i> a.)	—	131a, 131b	US Disp. 24, 1651
<i>Pseudochrosia glomerata</i> Blume	b	unn.	We 989
<i>Rauvolfia beddomei</i> Hook. f.	r	105, 136	J. Indian Chem. Soc. 33:379
<i>Rauvolfia caffra</i> Sond.	r	4	Quart. Rev. 10:129

Species	Plant part	Alkaloids	References
<i>Rauvolfia cambodiana</i> Pierre ex Pitard	rh	unn.	Compt. rend. 244:1254
<i>Rauvolfia canescens</i> L.	r	2, 4, 104, 105	Naturw. 42:39
	l	21, 60, 61, 102, 133, 134	
	r	26	CA 49:10320
	—	40	JACS 77:820 CA 49:10511
	r	41	JAPA 45:89
	r	59, 95	JAPA 44:639
	—	103	JAPA 253
	r	88	JCS 1956:187
	r	89	CA 49:10321
	r	93a	JOC 21:923
	l	99	CA 35:7967
	r	100	CA 50:4994
	r	108	CA 49:11956
	r	132	Naturw. 41:47
	r	137	Quart. Rev. 10:129
<i>Rauvolfia cumminsii</i> Stapf	rb	103	CA 50:5991
<i>Rauvolfia densiflora</i> Benth.	r	4, 103	Naturw. 42:182
<i>Rauvolfia grandiflora</i> Mart.	rb	103, unn.	CI 1956:173
<i>Rauvolfia hirsuta</i> Jacq.	r	19	CA 49:11239
	r	105	CA 50:2745
<i>Rauvolfia heterophylla</i> Willd.	r, l, s	2, 4, 21, 99, 108, 132	JACS 77:3551
	l, b, wd	28, 29	CA 32:721
	r	103	Naturw. 42:182
<i>Rauvolfia indecora</i> Woodson	r	105	J. Indian Chem. Soc. 33:381
<i>Rauvolfia inebrians</i> K. Schum.	r, b	unn.	CA 51:6952
<i>Rauvolfia mannii</i> Stapf	r	103	:8896
<i>Rauvolfia micrantha</i> Hook. f.	—	2, 103	CA 49:9229
	—	75a, 107a	Schl 56
<i>Rauvolfia mombasiana</i> Stapf	r	103	CI 1956:1387
<i>Rauvolfia nana</i> E. A. Bruce	r	103	CA 51:8896
<i>Rauvolfia natalensis</i> Sond.	rb	4, 103	JCS 1956:215
	b	97	We Sup 172
<i>Rauvolfia obscura</i> K. Schum.	—	19	Quart. Rev. 10:129
<i>Rauvolfia perakensis</i> King and Gamble	r	80, 103	Naturw. 42:182
<i>Rauvolfia sarapiquensis</i> Woodson	—	103	CI 1956:1387

Species	Plant part	Alkaloids	References
<i>Rauvolfia sellowii</i> Muell. Arg.	rb	2, 3, 21, 103, 115, 116	JACS 77:6687
	rb	4, 5, 108	CA 49:14270
<i>Rauvolfia semperflorens</i> (Muell. Arg.) Schlecht.	b	106	CA 49:3218
<i>Rauvolfia serpentina</i> (L.) Benth.	r	2, 4, 5, 108, 109	CA 26:1288
	r	14, 15	JACS 76:3234
	r	16, 56, 75, 76, 104, 135	Quart. Rev. 10:129
	r	30	CA 49:4938
	r	58, 93	CA 49:2447
	r	62a	CA 49:9666
	r	74, 77, 118, 132	CA 49:4684
	r	98	CA 48:1380
	r	101	JACS 77:2241
	r	102	CA 49:5778
	r	103	CA 47:8084
	r	105	CA 49:1742
	r	110	CA 49:5494
	r	111	CA 50:532
	r	46	CA 50:2622
	—	96	CA 48:6649
	r	unn. I, II	CA 48:9626
	r	136	CI 1954:375
<i>Rauvolfia ternifolia</i> HBK. (<i>R. ligustrina</i> Roem. and Schult.)	r	103	CA 51:670
<i>Rauvolfia tetraphylla</i> L.	r	103, 109, 116, 117	CI 1955:627
<i>Rauvolfia verticillata</i> Baill.	b	136	CA 50:8965
<i>Rauvolfia vomitoria</i> Afzel.	r, rb	2, 4, 19, 56, 94, 103, 107	AJP 127:270
	r	101	CA 49:16337
	rb	60, 105	CA 51:6085
	—	unn.	Webb PS
<i>Rejoua</i> sp.	b	unn.	We 985
<i>Rhynchosodia macrantha</i> Wehmer	sd	119	Klein 294
<i>Strophanthus gratus</i> Baill.	sd, rb	119	Klein 294
<i>Strophanthus hispidus</i> DC.	sd	119	M-H I 176
<i>Strophanthus kombe</i> Oliver	b	39, 112	H 501
<i>Tabernaemontana coronaria</i> (Jacq.) R. Br.	rb	unn.	CA 49:6541
<i>Tabernaemontana crispa</i> Roxb.	b	unn.	CA 48:7715
<i>Tabernaemontana dichotoma</i> Roxb.	l, b,		
<i>Tabernaemontana salzmanni</i> A. DC.	fr	112	We 986

Species	Plant part	Alkaloids	References
<i>Tabernaemontana sphaerocarpa</i> Blume	l, b, fr	112	Klein 799
<i>Tabernaemontana wallichiana</i> Steud.	b	112	We 986
<i>Tabernanthe iboga</i> Baill.	r	53, 113	H 768
	r	54	BA 26:19313
	—	55	CA 47:8969
<i>Tanghinia venenifera</i> Poir.	—	114a	Klein 741
<i>Tonduzia longifolia</i> (A. DC.) Markgraf	r	4, 40, 101, 103	JOC 21:480
<i>Urechites lutea</i> (L.) Britt.	l, s, fr	unn.	Authors' lab.
<i>Vallesia dichotoma</i> Ruiz and Pav.	—	25, 120	M-H II 422
<i>Vallesia glabra</i> (Cav.) Link	l, s	25, 120	M-H II 422
<i>Vinca difformis</i> Pourr.	—	124a	CA 50:17338
<i>Vinca herbacea</i> Waldst. and Kit.	—	unn.	CA 27:1029
<i>Vinca major</i> L.	l, s	104, 111	CA 49:11672
	—	13	CA 49:8563
	—	124	CA 49:16343
	—	123	CA 50:8694
<i>Vinca minor</i> L.	l	62	Monatsh. 85:10
	—	83	CA 49:10328
	—	90, 128	Sok 129
	l	125	Helv 36:2017
	—	127	M-H V 328
	l	unn.	Wall 4
<i>Vinca pubescens</i> Urv.	l	90, 128	H 778
<i>Vinca (Lochnera) rosea</i> L.	—	125	CA 50:4985
	r, l	2	CA 48:4559
	r, b	71, 108	CI 1956:173
	l, s	unn.	Webb 241
	r	13	Compt. rend. 245:1789
<i>Voacanga africana</i> Stapf	r, b	129, 131	CA 49:12774
<i>Voacanga bracteata</i> Stapf	b	130	CA 49:12775
	s	130a	Compt. rend. 244:1955
<i>Voacanga foetida</i> (Blume) K. Schum.	b	unn.	We 985
<i>Voacanga obtusa</i> K. Schum.	r, b	129, 131	CA 49:12774
<i>Voacanga thouarsii</i> Roem. and Schult.	b	130	CA 49:12775
<i>Voacanga</i> sp.	b	130	CA 50:8965
<i>Wallichiana</i> sp.	—	unn.	Webb PS
<i>Wrightia antidysenterica</i> (L.) R. Br.	sd, b	35	Klein 741
<i>Wrightia milligae</i> F. M. Bailey	b	unn.	Webb 241
<i>Wrightia zeylanica</i> (L.) R. Br.	—	35	Sok 129

TABLE 2
ALKALOIDS OCCURRING IN THE APOCYNACEAE

1. abyssinine	33. conessidine
2. ajmalicine (vincaine, vinaire, δ -yohimbine)	34. conessimine
3. ajmalidine	35. conessine
4. ajmaline (rauwolfine I. and S.)	36. conimine
5. ajmalinine	37. conkurchine
6. akuammenine	38. conkurchinine
7. akuammicine	39. coronarine
8. ψ -akuammicine	40. deserpidine
9. akuammidine	41. 11-desmethoxyreserpine
10. akuammigine	42. ditamine
11. ψ -akuammigine	43. echitamidine
12. akuammiline	44. echitamine
13. akuammine (vincama joridine)	45. echitenine
14. Alkaloid A (ex Rauvolfia serpentina)	46. 3-epi- α -yohimbine
15. alkaloid F	46a. forsteronine
16. alloyohimbine	47. geissospermine
16a. alstonamine	48. haplophytine
17. alstonidine	49. haslerine
18. alstoniline	50. holarrhenine
19. alstonine	51. holarrhimine
20. amsonine	52. hypoquebrachine
21. aricine	53. ibogaine
22. aspidosamine	54. ibogamine
23. aspidospermatine	55. iboluteine
24. aspidospermicine	56. isoajmaline
25. aspidospermine	57. isoconessimine
26. canescine	58. isorauhimbine
27. carpaine	59. isoraunescine
28. chalchupine A	60. isoreserpiline
29. chalchupine B	61. isoreserpinine
30. chandrine	62. isovincamine
31. chonemorphine	62a. isoyohimbine
32. cimicidine	63. kamassine
	64. kopsamine
	65. kopsiflorine
	66. kopsilongine
	67. kopsine

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|------|------------------------------------|-------|-----------------------------------|
| 68. | kopsinine | 104. | reserpinine |
| 69. | kurchicine | 105. | sarpagine |
| 70. | kurchine | 106. | semperflorine |
| 71. | lochnerine | 107. | seredine |
| 72. | macralstonidine | 107a. | serpentidine |
| 73. | macralstonine | 108. | serpentine |
| 74. | 11-methoxy- δ -yohimbine | 109. | serpentinine |
| 75. | methyl reserpate | 110. | serpine |
| 75a. | micranthine | 111. | serpinine |
| 76. | neojmaline | 112. | tabernaemontanine |
| 76a. | norconessine | 113. | tabernanthine |
| 77. | papaverine | 114. | tabersonine |
| 78. | paytamine | 114a. | tanghinine |
| 79. | paytine | 115. | py-tetrahydroalstonine |
| 80. | perakenine | 116. | tetraphyllicine |
| 81. | pereirine | 117. | tetraphylline |
| 82. | pereitrine | 118. | thebaine |
| 83. | perivincine | 119. | trigonelline |
| 84. | porphyrine | 120. | vallesine |
| 85. | porphyrosine | 121. | vellosine |
| 86. | pseudoakuammicine | 122. | villalstonine |
| 87. | pseudoakuammigine | 123. | vincamajine |
| 87a. | pseudocurarine (?) | 124. | vincamajoreine |
| 88. | pseudoreserpine | 124a. | vincamedine |
| 89. | pseudoyohimbine | 125. | vincamine |
| 90. | pubescine | 126. | vincarosine |
| 91. | quebrachamine | 127. | vineamine |
| 92. | quirandine | 128. | vinine |
| 93. | rauhimbine (corynanthine) | 129. | voacamine |
| 93a. | raujemidine | 130. | voacangine |
| 94. | raumitorine | 130a. | voacorine |
| 95. | raunescine | 131. | vobtusine |
| 96. | raupine | 131a. | yageine (harmine?) |
| 97. | rauwolfine | 131b. | yagenine (harmine?) |
| 98. | rauwolfinine | 132. | yohimbine |
| 99. | rauwolscine (α -yohimbine) | 133. | α -yohimbine (rauwalscine) |
| 100. | recanescine | 134. | β -yohimbine |
| 101. | rescinnamine | 135. | γ -yohimbine |
| 102. | reserpiline | 137. | ψ -yohimbine |
| 103. | reserpine | 136. | δ -yohimbine (ajmalicine) |