

# Phytoamine

Eine Dokumentation über ihr Vorkommen

Von

Günter F. W. Pehl

### Anmerkung

Diese Arbeit wurde 1975 beendet und, da seitens einiger Verlage kein Interesse bestand, seitdem nicht mehr fortgesetzt. Sie ist dennoch von einem gewissen Wert, da die Angaben zeitlos sind und besonders für die Pharmaindustrie von Bedeutung sein können. Das Internet bietet jetzt die Möglichkeit, diese Arbeit dennoch einem breiten Interessentenkreis zugänglich zu machen.

Berlin, Februar 2012

Vorwort

Die vorliegende Dokumentation soll einen Beitrag zur Chemotaxonomie der Pflanzen liefern und außerdem auch andere Bereiche, wie Pharmazie und Biochemie ansprechen. Sie liefert darüber hinaus einen Beitrag zur Erfassung wichtiger pharmazeutischer Rohstoffressourcen.

Es wurde die gesamte Literatur bis zum Jahre 1975 berücksichtigt, wobei zu 75 % Originalarbeiten ausgewertet wurden. Die bisher bezüglich ihrer Vorkommen nur verstreut unter den Alkaloiden, Antibiotika u. a. Gruppen aufgenommenen Phytoamine sind hier erstmals in einer Arbeit zusammengefaßt und vervollständigt worden. Auch wurden hier erstmals die Vorkommen von Cholin detailliert dargestellt. Ein besonderes Augenmerk wurde auf die Erfassung der untersuchten Organe gerichtet. Ungesicherte Angaben wurden nicht aufgenommen.

Die Abgrenzung zwischen den Aminen und den Alkaloiden ist gegenwärtig noch fließend. In der vorliegenden Arbeit sollen unter Aminen die Verbindungen verstanden werden, die mindestens eine Aminogruppe besitzen, jedoch keinen heterocyclisch gebundenen Stickstoff (Alkaloide) enthalten. Unberücksichtigt sind ferner Aminosäuren, Lactame und Peptid sowie Verbindungen, die außer C, H, N und O noch andere Elemente enthalten.

Die Strukturformeln sind in einfacher Form dargestellt. Sie dienen lediglich einer ersten Orientierung. Der sterische Zustand wurde nur dann berücksichtigt, wenn er zur Unterscheidung unerlässlich ist.

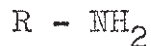
In der 1. Spalte sind die Taxa, in der 2. Spalte die Pflanzenorgane und in der 3. Spalte die Literaturstellen aufgeführt.

Inhalt

Teil A (Ordnung nach Aminen) . . . . .	1
Aliphatische primäre Amine . . . . .	1
Aliphatische sekundäre Amine . . . . .	20
Aliphatische tertiäre Amine . . . . .	23
Aliphatische Diamine . . . . .	27
Aliphatische Tri- und Tetramine . . . . .	31
Aliphatische Ammoniumverbindungen . . . . .	38
Aliphatische Aminoxide . . . . .	55
Ester aliphatischer Amine . . . . .	56
Ester aliphatischer Ammoniumverbindungen . . . . .	59
Guanidin und Guanidinderivate . . . . .	63
Alicyclische Amine und Ammoniumverbindungen . . . . .	68
Aromatische Amine . . . . .	87
Aromatische Ammoniumverbindungen . . . . .	124
Aromatische Aminoxide . . . . .	126
Steroidamine . . . . .	127
Steroid-Ammoniumverbindungen . . . . .	160
Macrocyclische Amine . . . . .	160
Teil B (Ordnung nach Familien) . . . . .	172
Verzeichnis der Abkürzungen . . . . .	185
Literatur . . . . .	186
Register . . . . .	230



Teil A  
Aliphatische primäre Amine



	<u>R</u>		<u>R</u>
Methylamin	CH <sub>3</sub>	n-Octylamin	C <sub>8</sub> H <sub>17</sub>
Ethylamin	C <sub>2</sub> H <sub>5</sub>	Isopropylamin	CH(CH <sub>3</sub> ) <sub>2</sub>
n-Propylamin	C <sub>3</sub> H <sub>7</sub>	Isobutylamin	C <sub>2</sub> H <sub>3</sub> (CH <sub>3</sub> ) <sub>2</sub>
n-Butylamin	C <sub>4</sub> H <sub>9</sub>	Isoamylamin	C <sub>3</sub> H <sub>5</sub> (CH <sub>3</sub> ) <sub>2</sub>
n-Amylamin	C <sub>5</sub> H <sub>11</sub>	t-Butylamin	C(CH <sub>3</sub> ) <sub>3</sub>
n-Hexylamin	C <sub>6</sub> H <sub>13</sub>	2-Methylbutylamin	C <sub>2</sub> H <sub>3</sub> (CH <sub>3</sub> )(C <sub>2</sub> H <sub>5</sub> )
n-Heptylamin	C <sub>7</sub> H <sub>15</sub>	Ethanolamin	C <sub>2</sub> H <sub>4</sub> OH

Methylamin

Bacteriophyta

Bacillaceae

Bacillus prodigiosus	953
Clostridium botulinum, Typ A; B, proteol.; F, proteol. (VPI-Nr. 1548)	124
Clostridium pasteurianum, 6013 (ATCC)	61
Clostridium sporogenes	124

Brevibacteriaceae

Brevibacterium linens	1134
-----------------------	------

Lactobacteriaceae

Streptococcus lactis	349
----------------------	-----

Micrococcaceae

Sarcina lutea, 9341 (ATCC)	61
----------------------------	----

Chlorophyta

Chlorellaceae

Chlorella fusca, 211-8 b	901
--------------------------	-----

Cladophoraceae

Cladophora rupestris	1066
----------------------	------

Codiaceae

Codium fragile	1066
----------------	------

Coelastraceae

Scenedesmus acutus var. alernans, 276-3 a	901
--	-----

Ulvaceae

Enteromorpha compressa	1066
Ulva lactuca	1066

Phaeophyta

Chordaceae

Chorda tomentosa	1066
------------------	------

Cystoseiraceae

Halidrys siliquosa	1066
--------------------	------

Desmarestiaceae		
Desmarestia aculeata		1066
Desmarestia viridis		1066
Fucaceae		
Fucus serratus		1066
Fucus spiralis		1066
Fucus vesiculosus		1066
Fucus vesiculosus	Thallus	1041
Laminariaceae		
Laminaria digitata		1066
Laminaria hyperborea		1066
Laminaria saccharina		1066
Punctariaceae		
Scytosiphon lomentaria		1066
<u>Rhodophyta</u>		
Bangiaceae		
Porphyra umbilicalis		1066
Ceramiales		
Ceramiales		
Ceramium rubrum		1066
Corallinales		
Corallinales		
Corallina officinalis		1066
Delesseriales		
Delesseriales		
Delesseria sanguinea		1066
Duomontiales		
Duomontiales		
Duomontia incrassata		1066
Gigartinales		
Gigartinales		
Chondrus crispus		1066
Phylloporales		
Phylloporales		
Ahnfeltia plicata		1066
Plocamiales		
Plocamiales		
Plocamium vulgare		1066
Rhizophyllidales		
Rhizophyllidales		
Polyides rotundus		1066
Rhodomelales		
Rhodomelales		
Polysiphonia urceolata		1066
Rhodomela confervoides		1066
Rhodophyllidales		
Rhodophyllidales		
Cystoglonium purpureum		1066
<u>Fungi</u>		
Agaricales		
Agaricales		
Lepiota clypeolaria	Fruchtkörper	1064
Clathraceae		
Clathraceae		
Anthurus muellerianus	Fruchtkörper	1064
Clavicipitales		
Clavicipitales		
Claviceps purpurea		569, 1069
Claviceps purpurea	Sklerotium	1064
Claviceps purpurea, B 62, B 63, B 64, B 85, C 1, C 2		394
Coprinales		
Coprinales		
Coprinus micaceus		647
Cortinariaceae		
Cortinariaceae		
Cortinarius cinnamomeus	Fruchtkörper	1064

Phallaceae		
Mutinus caninus	Fruchtkörper	1064
Phallus impudicus	Fruchtkörper, jung	651
Polyporaceae		
Boletus appendiculatus	Fruchtkörper	1064
Boletus edulis	Fruchtkörper	1064
Polyporus officinalis		966
Polyporus sulphureus		643, 645, 648, 704
Russulaceae		
Lactarius deliciosus	Fruchtkörper	1064
Lactarius helvus	Fruchtkörper	1064
Lactarius vellereus	Fruchtkörper	1064
Russula alutacea	Fruchtkörper	1064
Russula azurea	Fruchtkörper	1064
Russula delica	Fruchtkörper	1064
Russula foetens	Fruchtkörper	1064
Russula lepida	Fruchtkörper	1064
Russula maculata	Fruchtkörper	1064
Russula ochroleuca	Fruchtkörper	1064
Russula sardonias	Fruchtkörper	1064
Russula turci	Fruchtkörper	1064
Russula vesca	Fruchtkörper	1064
Russula violeipes	Fruchtkörper	1064
Sclerodermataceae		
Scleroderma vulgare	Fruchtkörper	1064
Strophariaceae		
Pholiota mutabilis	Fruchtkörper	1064
<u>Lichenes</u>		
Stictaceae		
Sticta fuliginosa		1064
Sticta sylvatica		1064
<u>Gymnospermae</u>		
Ginkgoaceae		
Ginkgo biloba	Frucht	1063
<u>Angiospermae (Dicotyledoneae)</u>		
Aceraceae		
Acer platanoides	Blatt	217
Caprifoliaceae		
Sambucus nigra	Blüte	1063
Viburnum opulus	Blüte	1063
Euphorbiaceae		
Hevea sp. (gutta)	Latex	23
Mercurialis annua	Pflanze, ganz + Blüte + Same	959
Mercurialis annua	Blatt/Blüte	1063
Mercurialis annua	Kraut/Same	874, 961
Mercurialis perennis		874
Mercurialis perennis	Schößling, blühend	209
Mercurialis perennis	Kraut	961
Mercurialis perennis	Blatt	209, 1063
Labiatae		
Lamium album	Blüte	607
Mentha aquatica	Blatt	350

Leguminosae		
Glycine max	Bohne	30
Vicia faba var. major	Same/Keimpflanze	853
Vicia faba var. minor	Same/Keimpflanze	853
Nymphaeaceae		
Nuphar luteum	Blüte	1063
Papaveraceae		
Chelidonium majus	Kraut + Wurzel, g.	606
Ranunculaceae		
Delphinium consolida	Blüte	1063
Thalictrum flavum	Blüte	1063
Rosaceae		
Crataegus oxyacantha	Fructus Crataegi	1063
Malus sp., Cox Orangen	Frucht	396
Malus sp., Macoun		84
Saxifragaceae		
Philadelphus lemoinii	Blüte	1063
Solanaceae		
Atropa belladonna	Blatt/Blüte	1063
Nicotiana longiflora	Blüte	1063
Nicotiana paniculata	Blüte	1063
Nicotiana rustica	Blatt/Blüte	1063
Nicotiana sanderae	Blüte	1063
Nicotiana tabacum	Blatt/Blüte	1063
Solanum tuberosum, Sorte Feldeslohn	Knolle	968
Staphyleaceae		
Staphylea colchica	Blüte	1063
Theaceae		
Camellia sinensis	Samen	1058
Umbelliferae		
Chaerophyllum aromaticum	Blüte	1063
Conicum maculatum	Blüte	1063
Heracleum sphondylium	Blüte	1063
Leptotaenia dissecta	ether. Wurzelöl	1197
<u>Angiospermae (Monocotyledoneae)</u>		
Araceae		
Acorus calamus	Wurzel	1129
Arum dioscoridis	Duftstoff	1040
Arum italicum	Blüte	1063
Arum italicum	Duftstoff	1040
Arum maculatum	Blüte	1063
Dracunculus vulgaris	Duftstoff	1040
Hydrosme rivieri	Duftstoff	1040
Sauromatum guttatum	Duftstoff	1040
Gramineae		
Zea mays, Doppellinienhybride NV 40	Karyopse/Keimpflanze	853
Iridaceae		
Iris germanica	Blüte	1063
Liliaceae		
Lilium candidum	Blüte	1063
Lilium martagon	Blüte	1063
Veratrum nigrum	Blüte	1063

EthylaminBacteriophyta

## Bacillaceae

Bacillus sphaericus, 245 (ATCC), 436, 2176, 2177 (CCMD) 61

Clostridium pasteurianum, 6013 (ATCC) 61

## Brevibacteriaceae

Brevibacterium linens 1134

## Corynebacteriaceae

Corynebacterium poinsettiae, L 17a 61

## Lactobacteriaceae

Streptococcus lactis 349

## Micrococcaceae

Micrococcus aurantiacus, 6 61

Sarcina lutea, 9341 (ATCC) 61

## Mycobacteriaceae

Mycobacterium phlei, A 30 61

Chlorophyta

## Codiaceae

Codium fragile 1066

Phaeophyta

## Desmarestiaceae

Desmarestia aculeata 1066

Rhodophyta

## Ceramiaceae

Ceramium rubrum 1066

## Delesseriaceae

Delesseria sanguinea 1066

## Duomontiaceae

Duomontia incrassata 1066

## Rhizophyllidaceae

Polyides rotundus 1066

## Rhodomelaceae

Polysiphonia urceolata 1066

Rhodomela confervoides 1066

## Rhodophyllidaceae

Cystoclonium purpureum 1066

Fungi

## Clavicipitaceae

Claviceps purpurea Secale cornutum, 1069

Claviceps purpurea Sklerotium 569, 1064

Claviceps purpurea, Wildform; Zuchtform Secale cornutum 570

Claviceps purpurea, B 62, B63, B64, B 85, C 1, C 2 394

## Copriniaceae

Coprinus micaceus 647

## Cortinariaceae

Inocybe patouillardii 650

Phallaceae			
Phallus impudicus	Fruchtkörper, jung		651
Polyporaceae			
Polyporus sulphureus			645, 648, 704
Ustilaginaceae			
Ustilago maydis tulasne			653
<u>Angiospermae (Dicotyledoneae)</u>			
Caprifoliaceae			
Sambucus nigra	Blüte		1068
Caryophyllaceae			
Lychnis coronaria	Blüte		397
Compositae			
Hieracium pilosella	Blüte		397
Cucurbitaceae			
Bryonia dioica	Blüte		1063
Geraniaceae			
Erodium cicutarium			259
Leguminosae			
Vicia faba var. major	Same/Keimpflanze		853
Vicia faba var. minor	Same/Keimpflanze		853
Rosaceae			
Crataegus oxyacantha	Frucht		770
Crataegus oxyacantha	Fructus Crataegi		1063
Malus sp., Cox Orangen	Frucht		396
Malus sp., Macoun			84
Scrophylariaceae			
Digitalis purpurea	Blüte		397
Solanaceae			
Nicotiana sp., Latakia	Bodenblatt		447
Theaceae			
Camellia sinensis	Blatt		1059
Camellia sinensis	Same, reif		1058
<u>Angiospermae (Monocotyledoneae)</u>			
Araceae			
Arum italicum	Blüte		1063, 1068
Arum italicum	Appendix		1068
Arum italicum	Duftstoff		1040
Arum maculatum	Blüte		1063
Arum maculatum	Spadix		397
Dracunculus vulgaris	Duftstoff		1040
Hydrosme rivieri	Duftstoff		1040
Sauromatum guttatum	Duftstoff		1040
Gramineae			
Zea mays, Doppellinienhybride NV 40	Karyopse/Keimpflanze		853

n-PropylaminPhaeophyta

Desmarestiaceae			
Desmarestia aculeata			1066

Rhodophyta

Ceramiales		
Ceramium rubrum		1066
Duomontiales		
Duomontia incranata		1066
Rhizophyllidales		
Polyides rotundus		1066
Rhodomelales		
Polysiphonia urceolata		1066
Rhodophyllidales		
Cystoclonium purpureum		1066

Fungi

Clavicipitales		
Claviceps purpurea		1069
Coprinales		
Coprinus micaceus		647
Cortinariales		
Inocybe patouillardii		650
Polyporales		
Polyporus sulphureus		645, 648, 704

Angiospermae (Dicotyledoneae)

Chenopodiaceae		
Camphorosma monspeliacum	ether. Öl	161
Leguminosae		
Vicia faba var. major	Same/Keimpflanze	853
Vicia faba var. minor	Same/Keimpflanze	853
Rosaceae		
Malus sp.	Blüte	397
Solanaceae		
Nicotiana sp., Latakia	Bodenblatt	447
Solanum tuberosum, Sorte Feldeslohn	Knolle	968
Theaceae		
Camellia sinensis	Blatt	1059
Umbelliferae		
Anthriscus silvestris	Infloreszenz	397

Angiospermae (Monokotyledoneae)

Gramineae		
Zea mays, Doppellinienhybride NV 40	Karyopse/Keimpflanze	853

n-ButylaminBacteriophyta

Lactobacteriales		
Streptococcus lactis		349

Fungi

Coprinales		
Coprinus micaceus		647



Angiospermae(Dicotyledoneae)

Cucurbitaceae		
Bryonia dioica	Wurzel	1167
Rosaceae		
Malus sp., Cox Orangen	Frucht	395, 396
Malus sp., Golden Delicious, Jonathan, Winter Glockenapfel	Frucht	395
Solanaceae		
Nicotiana sp., Latakia	Bodenblatt	447

n-AmylaminBacteriophyta

Lactobacteriaceae		
Streptococcus lactis		349

Angiospermae(Dicotyledoneae)

Solanaceae		
Nicotiana sp., Latakia	Bodenblatt	447

n-HexylaminBacteriophyta

Bacillaceae		
Clostridium botulinum, Typ A; Typ B, proteolyt.; Typ F, proteolyt. (VPI-Nr. 1548)		124
Clostridium sporogenes		124
Enterobacteriaceae		
Escherichia coli, A 17		61
Micrococcaceae		
Sarcina lutea, 9341 (ATCC)		61

Fungi

Clavicipitaceae		
Claviceps purpurea		569, 1069
Claviceps purpurea	Secale cornutum, L.	1069
Claviceps purpurea	Sklerotium	1064
Claviceps purpurea, Wildform; Zuchtform	Secale cornutum	570
Claviceps purpurea, B 62; B 63; B 64; B 85; C 1; C 2		394

Angiospermae(Dicotyledoneae)

Caprifoliaceae		
Sambucus nigra	Infloreszenz	397
Viburnum lantana	Blüte	397
Caryophyllaceae		
Lychnis coronaria	Blüte	397
Cruciferae		
Sinapis alba	Infloreszenz	397
Leguminosae		
Vicia faba	Keimpflanze	397



Rosaceae			
Chaenomeles lagenaria	Blüte		397
Malus sp., Cox Orangen	Frucht		396, 423
Malus sp., Jonathan; Ontario	Frucht		423
Solanaceae			
Nicotiana sp., Latakia	Bodenblatt		447
<u>Angiospermae (Monocotyledoneae)</u>			
Gramineae			
Zea mays	Keimpflanze		397

n-Heptylamin

<u>Angiospermae (Dicotyledoneae)</u>			
Caprifoliaceae			
Sambucus nigra	Infloreszenz		397
Rosaceae			
Chaenomeles lagenaria	Blüte		397
Solanaceae			
Nicotiana sp., Latakia	Bodenblatt		447
Verbenaceae			
Tectona grandis			235

n-Octylamin

<u>Angiospermae (Dicotyledoneae)</u>			
Caprifoliaceae			
Sambucus nigra	Infloreszenz		397
Viburnum lantana	Blüte		397
Solanaceae			
Nicotiana sp., Latakia	Bodenblatt		447

Isopropylamin

<u>Bacteriophyta</u>			
Lactobacteriaceae			
Streptococcus lactis			349
<u>Fungi</u>			
Clavicipitaceae			
Claviceps purpurea			1069
<u>Angiospermae (Dicotyledoneae)</u>			
Leguminosae			
Vicia faba var. minor, Bernburger Züchtung	Same + Keimpflanze		819
Rosaceae			
Malus sp.	Blüte		397
Solanaceae			
Nicotiana sp., Latakia	Bodenblatt		447
Umbelliferae			
Anthriscus silvestris	Infloreszenz		397
Conium maculatum	Infloreszenz, knos- pend		397

IsobutylaminBacteriophyta

## Bacillaceae

Bacillus sphaericus, 245 (ATCC);  
436 (CCM); 2176 (CCM); 2177 (CCM) 61

Clostridium botulinum, Typ A; B,  
proteolyt.; F, proteolyt. (VPI-  
Nr. 1548) 124

Clostridium pasteurianum, 6013  
(ATCC) 61

Clostridium sporogenes 124

Clostridium tetani 124

## Corynebacteriaceae

Corynebacterium poinsettiae, L 17a 61

## Enterobacteriaceae

Aerobacter aerogenes, 1559 61

Proteus mirabilis, 40-512-1 (CDC) 123

Proteus vulgaris, A 22 61

## Lactobacteriaceae

Streptococcus lactis 349

## Micrococcaceae

Micrococcus aurantiacus, 6 61

## Mycobacteriaceae

Mycobacterium phlei, A 30 61

## Pseudomonadaceae

Pseudomonas fluorescens, 18 61

Chlorophyta

## Codiaceae

Codium fragile 1066

Phaeophyta

## Desmarestiaceae

Desmarestia aculeata 1066

Desmarestia viridis 1066

Rhodophyta

## Ceramiaceae

Ceramium rubrum 1066

## Delesseriaceae

Delesseria sanguinea 1066

## Duomontiaceae

Duomontia incrassata 1066

## Rhizophyllidaceae

Polyides rotundus 1066

## Rhodomelaceae

Polysiphonia urceolata 1066

Rhodomela confervoides 1066

## Rhodophyllidaceae

Cystoclonium purpureum 1066

Fungi

## Clavicipitaceae

Claviceps purpurea		569
Claviceps purpurea	Secale cornutum	1069
Claviceps purpurea	Sklerotium	1064
Claviceps purpurea, B 62; B 63; B 64; C 1; C 2		394
Claviceps purpurea, Wildform; Zuchtform	Secale cornutum	570

Angiospermae(Dicotyledoneae)

## Asclepiadaceae

Cyanchum vincetoxicum	Blüte	1063
-----------------------	-------	------

## Caprifoliaceae

Sambucus nigra	Blüte	1063, 1068
Viburnum sp. (versch. Arten)		1067
Viburnum lantana	Blüte	397

## Leguminosae

Vicia faba var. major	Same/Keimpflanze	853
Vicia faba var. minor	Same/Keimpflanze	853

## Nymphaeaceae

Nuphar lutea	Blüte	1063
--------------	-------	------

## Rosaceae

Crataegus arnoldiana	Blüte	397
Crataegus digyna	Blüte	1063
Crataegus douglasii	Blüte	1063
Crataegus fecunda	Blüte	1063
Crataegus insperata	Blüte	1063
Crataegus monogyna	Blüte	397
Crataegus oxyacantha	Fructus Crataegi	1063
Crataegus oxyacantha	Frucht	770
Crataegus spinulosa	Blüte	1063
Crataegus tomentosa	Knospe/Blüte	1063
Filipendula ulmaria	Blüte	1063, 1068
Malus floribunda	Blüte	397
Pyrus communis	Knospe/Blüte	1063
Sorbus aucuparia	Blüte	1063

## Solanaceae

Datura stramonium	Blatt	397
Nicotiana sp., Latakia	Bodenblatt	447
Solanum tuberosum, Sorte Feldeslohn	Knolle	968

## Staphyleaceae

Staphylea colchica	Blüte	397
--------------------	-------	-----

## Theaceae

Camellia sinensis	Blatt	1059
-------------------	-------	------

## Umbelliferae

Conium maculatum	Blüte	1063
------------------	-------	------

Angiospermae(Monocotyledoneae)

## Araceae

Amorphophallus rivieri		1065
Arum italicum	Duftstoff	1040
Arum italicum	Blüte	1063, 1068
Arum maculatum		1067
Arum maculatum	Blüte	1063
Arum maculatum	Spadix/Spatha	397
Hydrosme rivieri	Duftstoff	1040
Sauromatum guttatum	Duftstoff	1040

Gramineae		
Zea mays, Doppellinienhybride		
NV 40	Karyopse/Keimpflanze	853
Iridaceae		
Iris germanica	Blatt	397

Isoamylamin

Bacteriophyta

Bacillaceae

Bacillus sphaericus, 245 (ATCC);		
436 (CCM); 2176; 2177		61
Clostridium botulinum, C; D		124
Clostridium innocuum, 2020		124
Clostridium limosum, 0658; 1748 B;		
1928; 1950		124
Clostridium novyi, A; B; 1602		124
Clostridium tetani		124

Enterobacteriaceae

Aerobacter aerogenes, 1		61
Proteus mirabilis, 40-512-1 (CDC)		123
Proteus vulgaris, A 22		61

Lactobacteriaceae

Streptococcus lactis		349
----------------------	--	-----

Pseudomonadaceae

Pseudomonas fluorescens, 18		61
-----------------------------	--	----

Chlorophyta

Cladophoraceae

Cladophora rupestris		1066
----------------------	--	------

Codiaceae

Codium fragile		1066
----------------	--	------

Ulvaceae

Enteromorpha compressa		1066
------------------------	--	------

Phaeophyta

Desmarestiaceae

Desmarestia aculeata		1066
Desmarestia viridis		1066

Punctariaceae

Scytosiphon lomentaria		1066
------------------------	--	------

Rhodophyta

Ceramiaceae

Ceramium rubrum		1066
-----------------	--	------

Corallinaceae

Corallina officinalis		1066
-----------------------	--	------

Delesseriaceae

Delesseria sanguinea		1066
----------------------	--	------

Duomontiaceae

Duomontia incrassata		1066
----------------------	--	------

Rhizophyllidaceae

Polyides rotundus		1066
-------------------	--	------

Rhodomelaceae

Polysiphonia urceolata		1066
Rhodomela confervoides		1066

Rhodophyllidaceae		
Cystoclonium purpureum		1066
<u>Fungi</u>		
Amanitaceae		
Amanita phalloides	Fruchtkörper	1064
Clavicipitaceae		
Claviceps purpurea	Secale cornutum	58, 1069
Claviceps purpurea	Sklerotium	569, 1064
Claviceps purpurea, B 62; B 63; B 64; B 85; C 1; C 2		394
Claviceps purpurea, Wildform; Zuchtform	Secale cornutum	570
Coprinaceae		
Coprinus atramentarius	Fruchtkörper	652
Coprinus micaceus		647
Cortinariaceae		
Inocybe patouillardii		650
Phlegmacium melliroleus	Fruchtkörper	1064
Lycoperdaceae		
Lycoperdon gemmatum	Fruchtkörper	1064
Lycoperdon piriforme	Fruchtkörper	1064
Phallaceae		
Mutinus caninus	Fruchtkörper	1064
Phallus impudicus	Fruchtkörper	1068
Phallus impudicus	Fruchtkörper, jung	651
Polyporaceae		
Boletus appendiculatus	Fruchtkörper	1064
Boletus edulis		1247
Boletus edulis	Fruchtkörper	1064
Boletus luridus	Fruchtkörper	1064
Boletus queletti	Fruchtkörper	1064
Boletus sanguineus	Fruchtkörper	1068
Polyporus sulphureus		643, 645, 648, 704
Xerocomus sanguineus	Fruchtkörper	1064
Xerocomus subtomentosus	Fruchtkörper	1064
Russulaceae		
Russula foetens	Fruchtkörper	1064
Russula maculata	Fruchtkörper	1064
Russula turci	Fruchtkörper	1064
Strophariaceae		
Namatoloma fasciculare	Fruchtkörper	1064
Tricholomataceae		
Marasmius peronatus	Fruchtkörper	1064
Ustilaginaceae		
Ustilago maydis tulasne		653
<u>Angiospermae (Dicotyledoneae)</u>		
Aceraceae		
Acer platanoides	Blatt	217
Araceae		
Dracunculus vulgaris	Duftstoff	1040
Hydrosme rivieri	Duftstoff	1040
Sauromatum guttatum	Duftstoff	1040
Asclepiadaceae		
Cynanchum vincetoxicum	Blüte	1063

Caprifoliaceae		
Sambucus nigra	Blüte	1063, 1068
Sambucus nigra	Knospe	1063
Viburnum betulifolium	Blüte	1063
Viburnum lantana	Blüte	397, 1063
Viburnum opulus	Blüte	1063
Viburnum rhytidophyllum	Blüte	1063
Caryophyllaceae		
Lychnis coronaria	Blüte	397
Cruciferae		
Sinapis alba	Infloreszenz	397
Euphorbiaceae		
Mercurialis annua	Blatt/Blüte	1063
Mercurialis perennis	Blatt	1063
Leguminosae		
Vicia faba var. major	Same/Keimpflanze	853
Vicia faba var. minor	Same/Keimpflanze	853
Vicia faba var. minor, Bernburger Züchtung	Same + Keimpflanze	819
Nymphaeaceae		
Nuphar lutea	Blüte	1063
Onagraceae		
Oenothera lamarckiana	Blüte	1063
Polygonaceae		
Polygonum cuspidatum	Blüte	1063
Rosaceae		
Amelanchier rotundifolia	Blüte	1063
Aruncus silvester	Blüte	1063
Chaenomeles alpina	Blüte	1063
Chaenomeles japonica	Blüte	1063
Chaenomeles lagenaria	Blüte	397
Cotoneaster conspicua	Blüte	1063
Cotoneaster integerrima	Blüte	1063
Crataegus arnoldiana	Blüte	397
Crataegus curvisepala	Blüte	1063
Crataegus digyna	Blüte	1063
Crataegus douglasii	Blüte	1063
Crataegus fecunda	Blüte	1063
Crataegus insperata	Blüte	1063
Crataegus jozana	Blüte	1063
Crataegus mollis	Blüte	397, 1063
Crataegus monogyna	Blüte	397, 1063
Crataegus monogyna var. Jacquini	Blüte	554
Crataegus oxyacantha	Flores Crataegi/ Fructus Crataegi	1063
Crataegus oxyacantha	Frucht	770
Crataegus oxyacantha	Blüte	1063
Crataegus pinnatifolia	Blüte	1063
Crataegus spinulosa	Blüte	1063
Crataegus tomentosa	Knospe/Blüte	1063
Filipendula ulmaria	Blüte	1063, 1068
Malus domesticus	Blüte	397
Malus floribunda	Blüte	397
Malus sp., Cox Orangen; Jonathan; Ontario	Frucht	423
Prunus avium	Blüte	1063
Prunus cerasifera	Blüte	1063
Prunus padus	Blüte	552, 1063
Prunus serotina	Blüte	1063
Prunus yedonensis	Blüte	1063



<i>Pyrus communis</i>	Knospe/Blüte	1063
<i>Pyrus piraster</i>	Blüte	554
<i>Sanguisorba officinalis</i>	Blüte	1063
<i>Sorbaria sorbifolia</i>	Blüte	1063
<i>Sorbus aria</i>	Blüte	554
<i>Sorbus aucuparia</i>	Blüte	1063
<i>Sorbus latifolia</i>	Blüte	551
<i>Spiraea bracteata</i>	Blüte	397
<b>Rubiaceae</b>		
<i>Galium silvaticum</i>	Blüte	1063
<i>Galium verum</i>	Blüte	1063
<b>Rutaceae</b>		
<i>Phellodendron amurense</i>	Blüte	1063
<b>Solanaceae</b>		
<i>Atropa belladonna</i>	Blüte	397, 1063
<i>Datura stramonium</i>	Blatt	397
<i>Nicotiana longiflora</i>	Blüte	1063
<i>Nicotiana paniculata</i>	Blüte	1063
<i>Nicotiana rustica</i>	Blüte	1063
<i>Nicotiana sanderae</i>	Blüte	1063
<i>Nicotiana tabacum</i>	Blatt/Blüte	1063
<i>Nicotiana sp., Latakia</i>	Bodenblatt	447
<i>Nicotiana sp.</i>		188, 772
<b>Staphyleaceae</b>		
<i>Staphylea colchica</i>	Blüte	397, 1063
<b>Sterculiaceae</b>		
<i>Theobroma sp., Kakao</i>	Bohnenaroma	237
<b>Theaceae</b>		
<i>Camellia sinensis</i>	Blatt	1059
<b>Umbelliferae</b>		
<i>Anthriscus silvestris</i>	Blüte	1063
<i>Chaerophyllum aromaticum</i>	Blüte	1063
<b><u>Angiospermae(Monocotyledoneae)</u></b>		
<b>Gramineae</b>		
<i>Zea mays, Doppellinienhybride</i>		
NV 40	Karyopse/Keimpflanze	853

t-Butylamin

Bacteriophyta

**Lactobacteriaceae**

*Streptococcus lactis*

349

**Angiospermae(Dicotyledoneae)**

**Solanaceae**

*Nicotiana sp., Latakia*

Bodenblatt

447

2-Methylbutylamin

**Angiospermae(Dicotyledoneae)**

**Caryophyllaceae**

*Lychnis coronaria*

Blüte

397

**Cruciferae**

*Sinapis alba*

Infloreszenz

397

Solanaceae		
Datura stramonium	Blatt	397
Staphyleaceae		
Staphylea colchica	Blüte	397
<u>Angiospermae (Monocotyledoneae)</u>		
Iridaceae		
Iris germanica	Blatt	397

Ethanolamin

Chlorophyta

Chlorellaceae		
Chlorella ellipsoidea		488
Chlorella fusca, 211-8 b		901
Coleastraceae		
Scenedesmus acutus var. alernans, 276-3 a		901

Phaeophyta

Chordariaceae		
Heterochordaria abietina		1112
Laminariaceae		
Laminaria angustata		1111

Fungi

Agaricaceae		
Agaricus campestris		22
Xerula pudens	Fruchtkörper	404
Amanitaceae		
Amanita muscaria		1113
Amanita verna	Fruchtkörper	404
Auriculariaceae		
Auricularia polytricha	Fruchtkörper	404
Clavicipitaceae		
Claviceps purpurea		569
Claviceps purpurea	Secale cornutum	568
Cordyceps militaris	Fruchtkörper	404
Cortinariaceae		
Inocybe patouillardii		650
Gomphidiaceae		
Gomphidius roseus	Fruchtkörper	404
Hygrophoraceae		
Cantharellus cibarius	Fruchtkörper	404
Cantharellus floccosus	Fruchtkörper	404
Hygrocybe coccinea	Fruchtkörper	404
Lycoperdaceae		
Lycoperdon piriforme	Fruchtkörper	404
Phallaceae		
Mutinus caninus	Fruchtkörper	404
Phallus impudicus	Fruchtkörper	404
Phallus impudicus	Fruchtkörper, jung	651
Polyporaceae		
Boletus edulis	Fruchtkörper	404
Boletus erythropus	Fruchtkörper	404
Boletus pulverulentus	Fruchtkörper	404



Boletus rubellus	Fruchtkörper	404
Boletus satanas	Fruchtkörper	404
Coriolus versicolor	Fruchtkörper	404
Ganoderma applanatum	Fruchtkörper	404
Polyporellus squamosus	Fruchtkörper	404
Polyporus sulphureus		643, 645, 648
Pulveroboletus cramesinus	Fruchtkörper	418
<b>Russulaceae</b>		
Lactarius piperatus	Fruchtkörper	404
Russula cyanoxantha	Fruchtkörper	404
<b>Sclerodermataceae</b>		
Scleroderma cepa	Fruchtkörper	404
<b>Tilletiaceae</b>		
Tilletia cares	Chlamydospore, ge- keimt/Myzel	747
<b>Tricholomataceae</b>		
Laccaria laccata	Fruchtkörper	404
Laccaria laccata var. proxima	Fruchtkörper	404
Marasmius androsaceus	Fruchtkörper	404
Marasmius oreades	Fruchtkörper	404
Pleurotus ostreatus	Fruchtkörper	404
Schizophyllum commune	Fruchtkörper	404
Tricholomopsis rutilans	Fruchtkörper	404
<b>Ustilaginaceae</b>		
Ustilago tragopogonis-pratensis	Spore	1051
<u><b>Lichenes</b></u>		
<b>Cladoniaceae</b>		
Cladonia silvatica		639
<b>Lecanoraceae</b>		
Lecanora myrinii		1049
<u><b>Bryophyta</b></u>		
<b>Polytrichaceae</b>		
Polytrichum formosum	Spore	373
<u><b>Angiospermae(Dicotyledoneae)</b></u>		
<b>Apocynaceae</b>		
Vinca minor	Blatt	627
<b>Araliaceae</b>		
Hedera helix	Blatt	627
<b>Bombacaceae</b>		
Hampea sp.	Knospe, männl./ Knospe, weibl./ Samenkapsel	815
<b>Boraginaceae</b>		
Lithospermum arvense	Blatt	627
Myosotis scorpioides	Blatt	627
<b>Caprifoliaceae</b>		
Sambucus nigra	Blatt	627
<b>Campanulaceae</b>		
Phyteuma spicatum	Blatt	627
<b>Caryophyllaceae</b>		
Stellaria graminea	Blatt	627

Compositae		
Achillea millefolium	Blatt	627
Taraxacum officinale	Blatt	627
Cruciferae		
Alliaria officinalis	Blatt	627
Lunaria annua	Same	611
Cucurbitaceae		
Bryonia dioica		1167
Trichosanthes cucumeroides	Same	742
Euphorbiaceae		
Euphorbia cyparissias	Blatt	627
Geraniaceae		
Geranium palustre	Blatt	627
Geranium robertianum	Blatt	627
Labiatae		
Ajuga reptans	Blatt	627
Lamium album	Blatt	627
Leguminosae		
Lathyrus vernus	Blatt	627
Medicago sp., Alfalfa, Klon I-545 (F <sub>1</sub> ); C-901 (F <sub>2</sub> )	Blatt/Stengel	674
Phaseolus radiatus var. typicus	Same	501
Phaseolus vulgaris	Knospe	815
Pisum sativum		714
Pisum sativum var. Onwards	Hülse/Same	438
Trifolium repens	Blatt	627
Linaceae		
Linum catharticum	Blatt	627
Malvaceae		
Callirhoe digitata	Knospe	815
Callirhoe involucrata	Knospe	815
Cienfuegosia heterophylla	Knospe	815
Cienfuegosia sulphurea	Knospe	815
Gossypium hirsutum	Knospe	815
Hibiscus esculentus	Knospe	815
Hibiscus syriacus	Knospe	815
Thespesia populnea	Knospe	815
Onagraceae		
Oenothera missouriensis	Griffel/Pollen	632
Oxalidaceae		
Oxalis acetosella	Blatt	627
Papaveraceae		
Chelidonium majus	Blatt	627
Polygonaceae		
Rumex acetosa	Blatt	627
Primulaceae		
Primula elatior	Blatt	627
Ranunculaceae		
Anemone hepatica	Blatt	627
Anemone nemorosa	Blatt	627
Ranunculus ficaria	Blatt	627
Rosaceae		
Crataegus oxyacantha	Blatt/Blüte/Frucht	770
Malus sp.	Blütenknospe	110
Malus sp., Golden Delicious		158
Malus sp., Macoun	Sporn	84

Potentilla anserina	Blatt	627	
Prunus persica	Blütenknospe	110	
Rubiaceae			
Asperula odorata	Blatt	627	
Santalaceae			
Santalum album	Blatt	604	
Scrophulariaceae			
Veronica arvensis	Blatt	627	
Solanaceae			
Lycopersicon esculentum var. Pan America		839	
Solanum tuberosum	Keimling	900	
Solanum tuberosum	Blatt	627	
Ulmaceae			
Ulmus americana	Xylemsaft	1034, 1035, 1036	
<u>Angiospermae (Monocotyledoneae)</u>			
Araceae			
Arum maculatum	Blatt	627	
Hydrosme rivieri	Duftstoff	1040	
Sauromatum guttatum	Duftstoff	1040	
Gramineae			
Agrostis alba	Blatt	627	
Avena sativa	Same	42	
Secale sp.	Keim	977	
Triticum sp.	Keim	977	
Zea mays	Same, grün	771	
Zea mays	Pollen	641	
Juncaceae			
Juncus inflexus	Blatt	627	
Liliaceae			
Allium schoenoprasum	Blatt	627	
Colchicum autumnale	Blatt	627	
Convallaria majalis	Blatt	627, 638	
Convallaria majalis	Same	638	
Hyacinthus orientalis	Blatt	627	
Lilium martagon	Blatt	627	
Polygonatum odoratum	Blatt	627	
Musaceae			
Musa acuminata cv. Gros Michel	Blatt	1075	
Orchidaceae			
Orchis masculus	Blatt	627	
Orchis purpurea	Blatt	627	
Potamogetonaceae			
Posidonia oceanica	Blatt	721	

Aliphatische sekundäre Amine

	$R_1$ - NH - $R_2$	$R_1$	$R_2$
		_____	_____
Dimethylamin		CH <sub>3</sub>	CH <sub>3</sub>
Methylethylamin		C <sub>2</sub> H <sub>5</sub>	CH <sub>3</sub>
Diethylamin		C <sub>2</sub> H <sub>5</sub>	C <sub>2</sub> H <sub>5</sub>
Di-n-propylamin		C <sub>3</sub> H <sub>7</sub>	C <sub>3</sub> H <sub>7</sub>
Methyl-n-butylamin		C <sub>4</sub> H <sub>9</sub>	CH <sub>3</sub>
Di-n-butylamin		C <sub>4</sub> H <sub>9</sub>	C <sub>4</sub> H <sub>9</sub>
Methyl-isopropylamin		CH(CH <sub>3</sub> ) <sub>2</sub>	CH <sub>3</sub>
n-Propyl-isopropylamin		CH(CH <sub>3</sub> ) <sub>2</sub>	C <sub>3</sub> H <sub>7</sub>
Isopropyl-n-butylamin		CH(CH <sub>3</sub> ) <sub>2</sub>	C <sub>4</sub> H <sub>9</sub>
Di-isopropylamin		CH(CH <sub>3</sub> ) <sub>2</sub>	CH(CH <sub>3</sub> ) <sub>2</sub>
Methyl-isobutylamin		C <sub>2</sub> H <sub>3</sub> (CH <sub>3</sub> ) <sub>2</sub>	CH <sub>3</sub>
Di-isobutylamin		C <sub>2</sub> H <sub>3</sub> (CH <sub>3</sub> ) <sub>2</sub>	C <sub>2</sub> H <sub>3</sub> (CH <sub>3</sub> ) <sub>2</sub>
Methyl-isoamylamin		C <sub>3</sub> H <sub>5</sub> (CH <sub>3</sub> ) <sub>2</sub>	CH <sub>3</sub>
Di-sec-butylamin		CH(CH <sub>3</sub> )(C <sub>2</sub> H <sub>5</sub> )	CH(CH <sub>3</sub> )(C <sub>2</sub> H <sub>5</sub> )
2-Methylaminoethanol		C <sub>2</sub> H <sub>4</sub> OH	CH <sub>3</sub>

DimethylaminBacteriophyta

## Brevibacteriaceae

Brevibacterium linens

1134

## Lactobacteriaceae

Streptococcus lactis

349

Chlorophyta

## Chlorellaceae

Chlorella fusca, 211-8 b

901

## Coelastraceae

Scenedesmus acutus var.  
alernans, 276-3 a

901

Phaeophyta

## Desmarestiaceae

Desmarestia aculeata

1066

Desmarestia viridis

1066

Fungi

## Clathraceae

Clathrus ruber

Fruchtkörper

1064

Coprinaceae			
	<i>Coprinus micaceus</i>		647
Phallaceae			
	<i>Phallus impudicus</i>		553
	<i>Phallus impudicus</i>	Fruchtkörper	550, 1065
	<i>Phallus impudicus</i>	Fruchtkörper, jung	651
Polyporaceae			
	<i>Polyporus sulphureus</i>		643, 645, 648, 704
Russulaceae			
	<i>Russula alutacea</i>	Fruchtkörper	1064
	<i>Russula aurata</i>	Fruchtkörper	1064, 1068
	<i>Russula cyanoxantha</i>	Fruchtkörper	1064
	<i>Russula grisea</i>	Fruchtkörper	1064
	<i>Russula lepida</i>	Fruchtkörper	1064
	<i>Russula olivacea</i>	Fruchtkörper	1064
	<i>Russula sardonia</i>	Fruchtkörper	1064
	<i>Russula turci</i>	Fruchtkörper	1064
	<i>Russula vesca</i>	Fruchtkörper	1064
	<i>Russula violeipes</i>	Fruchtkörper	1064
<u>Lichenes</u>			
Stictaceae			
	<i>Sticta sylvatica</i>		1064
<u>Angiospermae (Dicotyledoneae)</u>			
Capparaceae			
	<i>Maerua pseudopetalosa</i>	Wurzel	411
Leguminosae			
	<i>Glycine max</i>	Bohne	30
	<i>Vicia faba</i> var. major	Same/Keimpflanze	853
	<i>Vicia faba</i> var. minor	Same/Keimpflanze	853
Malvaceae			
	<i>Gossypium</i> sp.	Faser	194
Rosaceae			
	<i>Crataegus oxyacantha</i>	Frucht	770
Solanaceae			
	<i>Nicotiana tabacum</i> , Burley		141
	<i>Nicotiana</i> sp., Latakia	Bodenblatt	447
Umbelliferae			
	<i>Heracleum sphondylium</i>	Blüte	1063
<u>Angiospermae (Monocotyledoneae)</u>			
Araceae			
	<i>Arum italicum</i>	Duftstoff	1040
	<i>Dracunculus vulgaris</i>	Duftstoff	1040
	<i>Sauromatum guttatum</i>	Duftstoff	1040
Gramineae			
	<i>Hordeum</i> sp.		248
	<i>Zea mays</i> , Doppellinienhybride NV 40	Karyopse/Keimpflanze	853

MethylethylaminAngiospermae (Dicotyledoneae)

Solanaceae			
	<i>Nicotiana tabacum</i> , Burley		141
	<i>Nicotiana</i> sp., Latakia	Bodenblatt	447

DiethylaminBacteriophyta

## Lactobacteriaceae

Streptococcus lactis		349
----------------------	--	-----

Angiospermae (Dicotyledoneae)

## Leguminosae

Vicia faba var. major	Same/Keimpflanze	853
-----------------------	------------------	-----

## Solanaceae

Nicotiana tabacum, Burley		141
---------------------------	--	-----

Nicotiana sp., ...		316
--------------------	--	-----

Nicotiana sp., Latakia	Bodenblatt	447
------------------------	------------	-----

Solanum tuberosum, Sorte Feldeslohn	Knolle	968
--	--------	-----

## Theaceae

Camellia sinensis	Same	1058
-------------------	------	------

Angiospermae (Monocotyledoneae)

## Araceae

Arum italicum	Duftstoff	1040
---------------	-----------	------

Arum maculatum	Spatha	397
----------------	--------	-----

Di-n-propylaminBacteriophyta

## Lactobacteriaceae

Streptococcus lactis		349
----------------------	--	-----

Angiospermae (Dicotyledoneae)

## Solanaceae

Nicotiana sp., Latakia	Bodenblatt	447
------------------------	------------	-----

Methyl-n-butylamin/Methyl-isopropylamin/n-Propyl-isopropylamin/Methyl-isobutylamin/Methyl-isoamylamin/Di-sec-butylaminAngiospermaeAngiospermae (Dicotyledoneae)

## Solanaceae

Nicotiana sp., Latakia	Bodenblatt	447
------------------------	------------	-----

Di-n-butylaminBacteriophyta

## Bacillaceae

Clostridium botulinum, Typ A; B, proteolyt.; F, proteolyt. (VPI-Nr. 1548)		124
---	--	-----

Clostridium innocuum, 2020 (VPI)		124
----------------------------------	--	-----

Clostridium limosum, 0658; 1748 B; 1950 (VPI)		124
--	--	-----

Clostridium sporogenes		124
------------------------	--	-----

Angiospermae (Dicotyledoneae)

## Solanaceae

Nicotiana sp., Latakia	Bodenblatt	447
------------------------	------------	-----

Isopropyl-n-butylamin/Di-isopropylamin/Di-isobutylaminBacteriophyta

## Lactobacteriaceae

Streptococcus lactis

349

2-MethylaminoethanolFungi

## Melanosporaceae

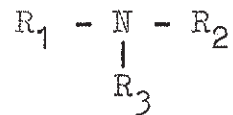
Neurospora crassa, Mutante

432

Neurospora crassa, 47 904

Myzel

378, 1252

Aliphatische tertiäre Amine

	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>	<u>R<sub>3</sub></u>
Trimethylamin	CH <sub>3</sub>	CH <sub>3</sub>	CH <sub>3</sub>
Triethylamin	C <sub>2</sub> H <sub>5</sub>	C <sub>2</sub> H <sub>5</sub>	C <sub>2</sub> H <sub>5</sub>
Tripopylamin	C <sub>3</sub> H <sub>7</sub>	C <sub>3</sub> H <sub>7</sub>	C <sub>3</sub> H <sub>7</sub>
2-Dimethylaminoethanol	C <sub>2</sub> H <sub>4</sub> OH	CH <sub>3</sub>	CH <sub>3</sub>

TrimethylaminBacteriophyta

## Bacillaceae

Clostridium bifermentans,  
2036 (VPI)

124

Clostridium sordelli, 2025 (VPI)

124

## Bacteriaceae

Bacterium prodigiosum  
(auf Kartoffel)

4

## Brevibacteriaceae

Brevibacterium linens

1134

## Enterobacteriaceae

Proteus vulgaris (L-Form)

1176

## Lactobacteriaceae

Streptococcus lactis

349

Chrysophyta

## Coscinodiscaceae

Stephanodiscus hantzschii

917

Chlorophyta

## Cladophoraceae

Cladophora rupestris

1066



Codiaceae			
<i>Codium fragile</i>			1066
Ulvaceae			
<i>Enteromorpha compressa</i>			1066
<i>Ulva lactuca</i>			1066
<u>Phaeophyta</u>			
Cystoseiraceae			
<i>Cystophyllum hakodatense</i>			1025
<i>Haliidrys siliquosa</i>			1066
Desmarestiaceae			
<i>Desmarestia aculeata</i>			1066
<i>Desmarestia viridis</i>			1066
Fucaceae			
<i>Fucus serratus</i>			494, 1066
<i>Fucus spiralis</i>			1066
<i>Fucus vesiculosus</i>			494, 1066
<i>Fucus vesiculosus</i>	Thallus		1041
<i>Pelvetia canaliculata</i>			375
Laminariaceae			
<i>Laminaria sp.</i>			502
Punctariaceae			
<i>Scytosiphon lomentaria</i>			1066
<u>Rhodophyta</u>			
Ceramiaceae			
<i>Ceramium rubrum</i>			1066
Corallinaceae			
<i>Corallina officinalis</i>			1066
Delesseriaceae			
<i>Delesseria sanguinea</i>			1066
Duomontiaceae			
<i>Duomontia incrassata</i>			1066
Gigartinaceae			
<i>Chondrus crispus</i>			1066
Phyllophoraceae			
<i>Ahnfeltia plicata</i>			1066
Plocamiaceae			
<i>Plocamium vulgare</i>			1066
Rhizophyllidaceae			
<i>Polyides rotundus</i>			1066
Rhodomelaceae			
<i>Polysiphonia urceolata</i>			1066
<i>Rhodomela confervoides</i>			1066
Rhodophyllidaceae			
<i>Cystoclonium purpureum</i>			1066
<u>Fungi</u>			
Agaricaceae			
<i>Cortinellus shiitake</i>			1267
Amanitaceae			
<i>Amanita muscaria</i>			603
Clathraceae			
<i>Clathrus ruber</i>	Fruchtkörper		1064



Clavicipitaceae			
Claviceps purpurea	Secale cornutum		136, 306
			1069
Claviceps purpurea	Sklerotium		1064, 1240
Hydnaceae			
Hydnum aspratun			445
Phallaceae			
Phallus impudicus			550
Phallus impudicus	Fruchtkörper		1065, 1068
Polyporaceae			
Boletus edulis			1261
Xerocomus subtomentosus	Fruchtkörper		1064
Russulaceae			
Russula alutacea	Fruchtkörper		1064
Russula lepida	Fruchtkörper		1064
Russula nigricans	Fruchtkörper		1064
Russula pseudodelica	Fruchtkörper		1064
Russula violeipes	Fruchtkörper		1064
Russula xerampelina var. barlae	Fruchtkörper		1064
Russula xerampelina var. rubra	Fruchtkörper		1064
Tilletiaceae			
Tilletia laevis (auf Weizen)	Spore		382
Tilletia tritici (auf Weizen- ähren)			1064
Ustilaginaceae			
Ustilago maydis			865
Ustilago maydis	Spore		1271
<u>Lichenes</u>			
Stictaceae			
Sticta fuliginosa			1064
Sticta fuliginosa	Hyphe		1291
Sticta sylvatica			1064
<u>Angiospermae (Dicotyledoneae)</u>			
Aristolochiaceae			
Aristolochia grandiflora	Blüte		1063
Calycanthaceae			
Calycanthus occidentalis	ether. Öl		949
Capparaceae			
Maerua pseudopetalosa	Wurzel		411
Chenopodiaceae			
Beta vulgaris var. esculenta	Same		486
Beta vulgaris var. esculenta	Saft		1294
Beta vulgaris var. rapa	Blütenpollen		1082
Chenopodium vulvaria	gasförm. Ausscheidg.		1230
Chenopodium vulvaria			234
Chenopodium vulvaria	Blatt		233, 1063,
			1190, 1200
Compositae			
Arnica montana			419
Cornaceae			
Cornus sanguinea	Blüte		1063
Euphorbiaceae			
Mercurialis annua	Same/Kraut		961

Labiatae			
Mentha aquatica	Blatt		350
Leguminosae			
Medicago sativa	Preßsaft		1187
Phaseolus vulgaris			189, 190
Malvaceae			
Gossypium sp.			847, 848
Gossypium sp.	Zweig (haupts. Blätter, Blüten), g.		849
Gossypium sp.	Faser		194
Moraceae			
Humulus lupulus			362
Plumbaginaceae			
Limonium vulgare	Blatt/Blütenstiel/ Frucht/Stamm/Haupt- wurzel/Nebenwurzel		610
Rosaceae			
Crataegus curvisepala	Blüte		1063
Crataegus douglasii	Knospe/Blüte		1063
Crataegus fecunda	Blüte		1063
Crataegus insperata	Blüte		1063
Crataegus jozana	Blüte		1063
Crataegus mollis	Blüte		1063
Crataegus monogyna	Blüte		1063, 1249, 1250
Crataegus monogyna var. Jacquini	Blüte		554
Crataegus oxyacantha	Blüte		1063, 1229
Crataegus oxyacantha	Blütenboden		1230
Crataegus pentagyna	Blüte		554
Crataegus spinulosa	Blüte		1063
Malus sp., Macoun			84
Prunus padus	Blüte		552
Prunus serotina	Blüte		1063
Pyrus communis	Blüte		1063, 1249
Pyrus communis	Knospe		1063
Pyrus piraster	Blüte		554
Sorbaria sorbifolia	Blüte		1063
Sorbus aucuparia	Blüte		1063, 1249
Sorbus latifolia	Blüte		551
Solanaceae			
Lycium vulgare	Pflanze		832
Theaceae			
Camellia sinensis	Same		1058
Camellia sinensis	Blatt		1059
Umbelliferae			
Heracleum sphondylium	Blüte		1063, 1068
<u>Angiospermae (Monocotyledoneae)</u>			
Araceae			
Amorphophallus rivieri			1065
Dracunculus vulgaris	Duftstoff		1040
Sauromatum guttatum			1067
Sauromatum guttatum	Duftstoff		1040

Triethylamin/TripropylaminBacteriophyta

## Lactobacteriaceae

Streptococcus lactis

349

2-DimethylaminoethanolFungi

## Melanosporaceae

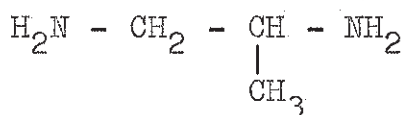
Neurospora crassa, 47 904

Myzel

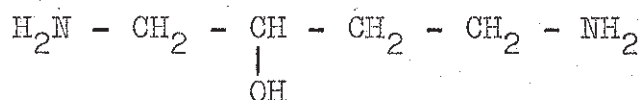
378, 1252

Aliphatische Diamine

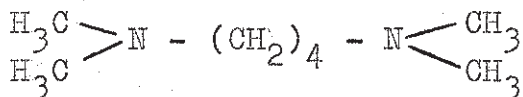
	<u>n</u>		<u>n</u>
1,3-Propandiamin	3	Cadaverin	5
Putrescin	4	1,6-Hexandiamin	6



1.2-Propandiamin



2-Hydroxyputrescin



Tetramethylputrescin



Isopentenylputrescin

1,3-PropandiaminBacteriophyta

## Azotobacteriaceae

Azotobacter vinelandii

415

## Bacillaceae

Clostridium botulinum, Typ B,  
nichtproteolyt. (VPI-Nr. 1731);  
E; F, nichtproteolyt.

124

Fungi

## Melanosporaceae

Neurospora crassa

415

## Saccharomycetaceae

Saccharomyces cerevisiae

415

Angiospermae (Dicotyledoneae)

## Leguminosae

Pisum sativum cv. nano

Same

49

PutrescinBacteriophyta

## Bacillaceae

- Clostridium histolyticum,  
2031 (VPI)  
Clostridium septicum

124  
124

## Enterobacteriaceae

- Escherichia coli  
Escherichia coli, Typ B  
Escherichia coli, Typ B  
Escherichia coli, K-12, 3000  
Proteus mirabilis,  
40-512-1 (CDC)

Ribosom  
Ribosom

1017, 1056  
24, 1074  
196  
731  
123

## Parvobacteriaceae

- Haemophilus parainfluenzae  
Haemophilus parainfluenzae,  
7901 (ATCC)

508  
1209

## Pseudomonadaceae

- Pseudomonas acidovorans  
Pseudomonas tularensis, 176  
Pseudomonas sp.  
Pseudomonas sp., Kim (-)

Ribosom

497  
1209  
535  
902

Myxophyta

## Physaraceae

- Physarum polycephalum, M3C (IV)

Plasmodium

716

Chlorophyta

## Chlorellaceae

- Chlorella ellipsoidea  
Chlorella fusca, 211-8 b

488  
901

## Coelastraceae

- Scenedesmus acutus var.  
alernans, 276-3 a

901

Fungi

## Amanitaceae

- Amanita muscaria

586, 954

## Clavicipitaceae

- Claviceps purpurea

306, 530,  
546

- Claviceps purpurea

Secale cornutum

890

- Claviceps purpurea

Sklerotium

568

## Coprinnaceae

- Coprinus atramentarius

Fruchtkörper

652

## Cortinariaceae

- Inocybe patouillardii

650

## Phallaceae

- Phallus impudicus

Fruchtkörper, jung

651

## Polyporaceae

- Boletus edulis

883, 1245,  
1246

- Boletus elegans

506

- Boletus luteus

506

## Ustilaginaceae

- Ustilago maydis tulasne

653

Angiospermae (Dicotyledoneae)

Chenopodiaceae		
Beta vulgaris	Blatt	1044
Compositae		
Lactuca sativa	Blatt	1044
Senecio vulgaris	Blatt	1044
Cruciferae		
Brassica oleracea var. capitata	Blatt	1044
Raphanus sativus	Blatt	1044
Raphanus sativus, Sorte Suxa	Blatt	1045
Geraniaceae		
Erodium cicutarium		260
Leguminosae		
Glycine max	Bohne	1201, 1202
Lathyrus tingitanus	Same	867
Phaseolus vulgaris	Epikotyl	50
Pisum sativum	Blatt	1044
Pisum sativum, Sorte Meteor	Blatt	1045
Pisum sativum cv. nano	Same	49
Trifolium pratense	Blatt	1044
Linaceae		
Linum usitatissimum	Blatt	1044
Rutaceae		
Citrus grandis	Frucht	424
Citrus sp., Orange	Saft	414
Santalaceae		
Santalum album	Blatt	604
Saxifragaceae		
Ribes nigrum, Sorte Baldwin	Blatt	1045
Solanaceae		
Atropa belladonna		188
Atropa belladonna	Blatt	208, 351
Atropa belladonna	Stengel	208
Datura stramonium		188, 351
Datura stramonium	Blatt/Stengel	208
Lycopersicon esculentum	Blatt	1044
Lycopersicon esculentum var. San Marzano	Frucht, grün	48
Nicotiana sp.		1108
Nicotiana tabacum, Sorte Burley	Blatt	1045
Tiliaceae		
Tilia cordata	Phloem	1289

Angiospermae (Monocotyledoneae)

Araceae		
Arum italicum	Duftstoff	1040
Sauromatum guttatum	Duftstoff	1040
Gramineae		
Avena sativa	Keim	732
Avena sativa	Blatt	1040
Hordeum vulgare, Sorte HB 248-17-4	Blatt	1032, 1044
Hordeum vulgare, Sorte Plumage Archer; Proctor	Blatt	1044
Hordeum vulgare, Sorte Zephyr	Blatt	1045
Hordeum sp.	Keim	732
Oryza sativa	Keim	732

Secale cereale	Blatt	1044
Secale cereale	Korn, reifend	530
Sorgum sp.	Keim	732
Triticum aestivum	Blatt	1044
Triticum sp.	Keim	732
Zea mays	Keim	732
Zea mays, Hy 2x07	Blatt	1045
Palmae		
Cocos nucifera	Milch	47

Cadaverin

Bacteriophyta

Bacillaceae

Clostridium histolyticum, 2031 (VPI)		124
Clostridium septicum		124

Brevibacteriaceae

Brevibacterium linens		1134
-----------------------	--	------

Enterobacteriaceae

Escherichia coli	Ribosom	1056
Proteus mirabilis, 40-512-1 (CDC)		123

Fungi

Clavicipitaceae

Claviceps purpurea	Secale cornutum	890
Claviceps purpurea	Sklerotium	306, 568

Coprinaceae

Coprinus atramentarius	Fruchtkörper	652
------------------------	--------------	-----

Cortinariaceae

Inocybe patouillardii		650
-----------------------	--	-----

Angiospermae (Dicotyledoneae)

Leguminosae

Glycine max		1202
Glycine max	Keimling, etioliert	941
Glycine max	Bohne	30
Pisum sativum var. Homoesteader	Samentrieb, beschnitten	27

Solanaceae

Solanum tuberosum		1265
Solanum tuberosum	Knolle	1266

Angiospermae (Monocotyledoneae)

Araceae

Arum italicum	Duftstoff	1040
Sauromatum guttatum	Duftstoff	1040

Gramineae

Avena sativa	Keim	732
Hordeum sp.	Keim	732
Oryza sativa	Keim	732
Sorgum sp.	Keim	732
Triticum sp.	Keim	732
Zea mays	Keim	732

1,6-Hexandiamin/1,2-PropandiaminAngiospermae (Monocotyledoneae)

## Araceae

Arum italicum	Duftstoff	1040
Sauromatum guttatum	Duftstoff	1040

2-HydroxyputrescinBacteriophyta

## Pseudomonadaceae

Pseudomonas acidovorans		497
Pseudomonas sp., Kim		587
Pseudomonas sp., Kim (-)	Ribosom	902
Pseudomonas sp., Spermin-frei		588

TetramethylputrescinAngiospermae (Dicotyledoneae)

## Acanthaceae

Ruellia rosea	Wurzel/oberird. Teile	480
---------------	-----------------------	-----

## Rubiaceae

Oldenlandia affinis	Bodenblatt+Zweig	356
---------------------	------------------	-----

## Solanaceae

Duboisia leichardtii	Wurzelholz	364
Duboisia myoporoides	Wurzelholz/Wurzel- rinde	205
Hyoscyamus aureus		813
Hyoscyamus muticus		1239
Hyoscyamus niger		841
Hyoscyamus reticulatus	Wurzel	567

IsopentenylputrescinAngiospermae (Dicotyledoneae)

## Leguminosae

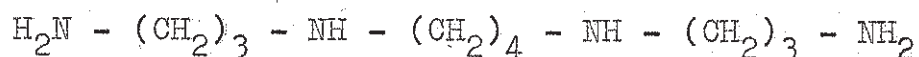
Eremosparton flaccidum		707
------------------------	--	-----

Aliphatische Tri- und Tetramine

Spermidin



Homospermidin



Spermin

SpermidinBacteriophyta

## Azotobacteriaceae

Azotobacter vinelandii		1106
------------------------	--	------



Bacillaceae		
Bacillus stearothermophilus, 8923 (NCIB)		1074
Bacillus subtilis, 6633 (ATCC)		44
Clostridium histolyticum, 2031 (VPI)		124
Enterobacteriaceae		
Escherichia coli		1106
Escherichia coli	Ribosom	1056
Escherichia coli, 59 (DCM)		44
Escherichia coli, Typ B		24, 1074
Escherichia coli, Typ B	Ribosom	196
Escherichia coli, K-12, 3000		731
Escherichia coli, W		371
Lactobacteriaceae		
Lactobacillus acidophilus, A 832; R 26		371
Lactobacillus arabinosus, 17-5, 8014 (ATCC)		371
Lactobacillus bulgaricus, 7993; 7994 (ATCC)		371
Lactobacillus casei, 7469 (ATCC)		371
Lactobacillus delbrueckii, D 730, 9649 (ATCC)		371
Lactobacillus delbrueckii, 3		371
Lactobacillus fermenti, 36, 9338 (ATCC)		371
Lactobacillus helveticus, 80		371
Lactobacillus leichmanni		371
Lactobacillus pentosus, 124-2		371
Lactobacillus sp., 30 a		371
Streptococcus equinus, P 60		371
Streptococcus faecalis, 8043; 6792; 9790 (ATCC)		371
Parvobacteriaceae		
Haemophilus influenzae		508
Pseudomonadaceae		
Pseudomonas acidovorans		497
Pseudomonas aeruginosa		44
Pseudomonas tularensis, 176		1209
<u>Myxophyta</u>		
Physaraceae		
Physarum polycephalum, M3C (IV)	Plasmodium	716
<u>Chlorophyta</u>		
Chlorellaceae		
Chlorella ellipsoidea		488
Chlorella fusca, 211-8 b		901
Coelastraceae		
Scenedesmus acutus var. alernans, 276-3a		901
<u>Fungi</u>		
Aspergillaceae		
Aspergillus nidulans		1106
Coprinaceae		
Coprinus comatus		643, 644



Melanosporaceae		
<i>Neurospora crassa</i> , 34 455 (DCM)		44
Pucciniaceae		
<i>Puccinia graminis tritici</i>	Uredosporen	537
Saccharomycetaceae		
<i>Saccharomyces cerevisiae</i>		1106
<i>Saccharomyces cerevisiae</i> , 81 (DCM)		44
<i>Saccharomyces cerevisiae</i> , Fleishman 7754 (ATCC)		162
Ustilaginaceae		
<i>Ustilago maydis tulasne</i>		653
<u>Gymnospermae</u>		
Cupressaceae		
<i>Cupressus sempervirens</i>	Same	49
<i>Juniperus communis</i>	Same	49
<i>Thuja orientalis</i>	Same	49
Pinaceae		
<i>Abies alba</i>	Same	49
<i>Pinus nigra</i> var. <i>austriaca</i>	Same	49
Taxaceae		
<i>Taxus baccata</i>	Same	49
<u>Angiospermae (Dicotyledoneae)</u>		
Chenopodiaceae		
<i>Spinacia oleracea</i> , Sorte Dominant	Blatt	1045
Compositae		
<i>Helianthus tuberosus</i>	Same	49
Cruciferae		
<i>Brassica napus</i>	Same	49
<i>Brassica oleracea</i> cv. ramoso di Ruvo	Same	49
<i>Raphanus sativus</i> cv. rotondo rosso	Same	49
<i>Raphanus sativus</i> , Sorte Saxa	Blatt	1045
Cucurbitaceae		
<i>Cucumis melo</i> cv. golden delight	Same	49
<i>Cucumis sativus</i> cv. delicatessa	Same	49
<i>Cucurbita pepo</i> cv. cespuglio bianco	Same	49
<i>Cucurbita pepo</i> var. <i>medullosa</i> , Sorte Suttons improved green bush	Blatt	1045
<i>Lagenaria vulgaris</i>	Same	49
Juglandaceae		
<i>Juglans regia</i>	Same	49
Leguminosae		
<i>Arachis hypogaea</i>	Same	49
<i>Cicer arietinum</i>	Same	49
<i>Cytisus laburnum</i>	Same	49
<i>Dolichos bicontortus</i>	Same	49
<i>Dolichos lablab</i>	Same	49
<i>Erythrina crista-galli</i>	Same	49
<i>Glycine max</i>	Bohne	1201, 1202
<i>Hedysarum coronarium</i>	Same	49
<i>Lathyrus cicera</i>	Same	49
<i>Lathyrus odoratus</i>	Same	49

Lens esculenta	Same	49
Lupinus albus	Same	49
Melilotus officinalis	Same	49
Phaseolus acutifolius var. latifolius	Same	49
Phaseolus aureus	Same	49
Phaseolus coccineus cv. di Spagna	Same	49
Phaseolus lunatus	Same	49
Phaseolus multiflorus	Same	49
Phaseolus mungo	Same	49
Phaseolus vulgaris	Keimpflanze	50
Phaseolus vulgaris cv. cannellino di Romagna	Same	49
Phaseolus vulgaris cv. nano di Vigevano	Same	49
Pisum sativum, Sorte Meteor	Wurzel/Blatt	1045
Pisum sativum cv. nano	Same	49
Trifolium repens	Same	49
Vicia atropurpurea	Same	49
Vicia ervilia	Same	49
Vicia faba	Same	49
Vicia narbonensis	Same	49
Vicia sativa	Same	49
Vicia villosa	Same	49
Vigna marginata	Same	49
Vigna unguiculata var. sinensis	Same	49
<b>Linaceae</b>		
Linum usitatissimum	Same	49
<b>Rosaceae</b>		
Fragaria chilonensis var. ananassa, Sorte Cambridge Viogour	Blatt	1045
Malus sp., Beauty of Bath	Blatt	1045
Malus sp., Cox Orangen	Blatt/Frucht	1045
Prunus communis	Same	49
Pyracantha coccinea	Blatt	1045
<b>Rutaceae</b>		
Citrus aurantium var. nobilis	Same	49
<b>Salicaceae</b>		
Salix babylonica	Blatt	1045
<b>Saxifragaceae</b>		
Ribes nigrum, Sorte Baldwin	Blatt	1045
<b>Solanaceae</b>		
Capsicum aureum cv. corno di bue	Same	49
Lycopersicon esculentum	Blatt	1107
Lycopersicon esculentum, Sorte Outdoor Girl	Blatt	1045
Lycopersicon esculentum var. San Marzano	Saft von grüner Frucht	48
Nicotiana tabacum, Burley	Blatt	1045
Petunia hybrida, W 166 k	Pollen	640
Solanum sisymbriifolium	Same	49
<b>Angiospermae (Monocotyledoneae)</b>		
<b>Iridaceae</b>		
Iris pseudoacorus	Same	49

## Gramineae

Avena sativa	Keim	732
Hordeum vulgare, Sorte Zephyr	Blatt	1045
Hordeum sp.	Keim	732
Oryza sativa	Keim	732
Sorgum sp.	Keim	732
Triticum aestivum, Sorte Atle	Blatt	1045
Triticum sp.	Keim	732
Triticum sp., Sorte Hard Red Winter	Samenanlagen/Blatt/ Karyopse/Halm/Pollen- körner	51
Zea mays	Keim	732
Zea mays, Hy 2x07	Blatt	1045

HomospermidinAngiospermae (Dicotyledoneae)

## Santalaceae

Santalum album	Blatt	604
----------------	-------	-----

SperminBacteriophyta

## Azotobacteriaceae

Azotobacter vinelandii		1106
------------------------	--	------

## Bacillaceae

Bacillus stearothermophilus, 8923 (NCIB)		1074
Clostridium bifermentans, 2036 (VPI)		124
Clostridium histolyticum, 1528; 2031 (VPI)		124
Clostridium perfringens, 1539 (VPI)		124
Clostridium sordelli, 2025 (VPI)		124

## Enterobacteriaceae

Escherichia coli		1106
Escherichia coli	Ribosom	1056
Escherichia coli, W		371

## Lactobacteriaceae

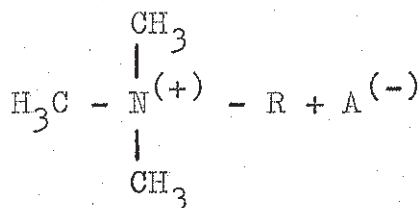
Lactobacillus acidophilus A 832; R 26		371
Lactobacillus arabinosus, 17-5, 8014 (ATCC)		371
Lactobacillus bulgaris, 7993; 7994 (ATCC)		371
Lactobacillus casei, 7469 (ATCC)		371
Lactobacillus delbrueckii, 3; D 730, 9649 (ATCC)		371
Lactobacillus fermenti, 36, 9338 (ATCC)		371
Lactobacillus helveticus, 80		371
Lactobacillus leichmanni		371
Lactobacillus sp., 30a		371
Streptococcus equinus, P 60		371
Streptococcus faecalis, 8043; 6792; 9790 (ATCC)		371

Parvobacteriaceae		
Haemophilus parainfluenzae		508
<u>Fungi</u>		
Aspergillaceae		
Aspergillus nidulans		1106
Saccharomycetaceae		
Saccharomyces cerevisiae		415, 1106
Saccharomyces cerevisiae, Fleishman, 7754 (ATCC)		162
<u>Gymnospermae</u>		
Cupressaceae		
Cupressus sempervirens	Same	49
Juniperus communis	Same	49
Thuja orientalis	Same	49
Pinaceae		
Abies alba	Same	49
Pinus nigra var. austriaca	Same	49
Taxaceae		
Taxus baccata	Same	49
<u>Angiospermae (Dicotyledoneae)</u>		
Chenopodiaceae		
Spinacia oleracea, Sorte Dominant 65 round	Blatt	1045
Compositae		
Cynara cardunculus var. inerme puvis	Same	49
Cynara scolymus cv. violetto di Chioggia	Same	49
Helianthus tuberosus	Same	49
Cruciferae		
Brassica napus	Same	49
Brassica oleracea cv. ramoso di Ruvo	Same	49
Raphanus sativus, Sorte Saxa	Blatt	1045
Raphanus sativus cv. rotondo rosso	Same	49
Cucurbitaceae		
Cucumis melo var. golden delight	Same	49
Cucumis sativus cv. delicatezza	Same	49
Cucurbita pepo cv. cespuglio bianco	Same	49
Cucurbita pepo var. medullosa, Suttons improved green bush	Blatt	1045
Lagenaria vulgaris	Same	49
Juglandaceae		
Juglans regia	Same	49
Leguminosae		
Arachis hypogaea	Same	49
Cicer arietinum	Same	49
Cytisus laburnum	Same	49
Dolichos bicontortus	Same	49
Dolichos lablab	Same	49
Erythrina crista-galli	Same	49
Glycine max	Bohne	1201, 1202
Glycine soja	Same	49
Hedysarum coronarium	Same	49

Lathyrus cicera	Same	49
Lathyrus odoratus	Same	49
Lens esculenta	Same	49
Lupinus albus	Same	49
Melilotus officinalis	Same	49
Phaseolus acutifolius var. latifolius	Same	49
Phaseolus aureus	Same	49
Phaseolus coccineus cv. di Spagna	Same	49
Phaseolus lunatus	Same	49
Phaseolus multiflorus	Same	49
Phaseolus mungo	Same	49
Phaseolus vulgaris	Keimpflanze	50
Phaseolus vulgaris cv. cannellino di Romagna	Same	49
Phaseolus vulgaris cv. nano di Vigevano	Same	49
Pisum sativum, Sorte Meteor	Blatt/Wurzel	1045
Pisum sativum cv. nano	Same	49
Trifolium repens	Same	49
Vicia atropurpurea	Same	49
Vicia ervilia	Same	49
Vicia faba	Same	49
Vicia narbonensis	Same	49
Vicia sativa	Same	49
Vicia villosa	Same	49
Vigna marginata	Same	49
Vigna unguiculata var. sinensis	Same	49
Linaceae		
Linum aurantium var. nobilis	Same	49
Rosaceae		
Fragaria chilonensis var. ananassa, Sorte Cambridge Vigour	Blatt	1045
Malus silvestris cv. deliciosus	Same	49
Malus sp., Beauty of Bath	Blatt	1045
Malus sp., Cox Orangen	Blatt/Frucht	1045
Prunus communis	Same	49
Pyracantha coccinea	Blatt	1045
Rutaceae		
Citrus aurantium var. nobilis	Same	49
Salicaceae		
Salix babylonica	Blatt	1045
Saxifragaceae		
Ribes nigrum, Sorte Baldwin	Blatt	1045
Solanaceae		
Capsicum aureum cv. corno di bue	Same	49
Lycopersicon esculentum, Sorte Outdoor Girl	Blatt	1045
Lycopersicon esculentum var. San Marzano	Frucht, grün	48
Nicotiana tabacum, Burley	Blatt	1045
Solanum sisymbriifolium	Same	49
<u>Angiospermae (Monocotyledoneae)</u>		
Gramineae		
Avena sativa	Keim	732
Hordeum vulgare, Sorte Zephyr	Blatt	1045
Hordeum sp.	Keim	732
Oryza sativa	Keim	732

Sorgum sp.	Keim	732
Triticum aestivum, Sorte Atle	Blatt	1045
Triticum sp.	Keim	732
Triticum sp., Sorte Hard Red Winter	Samenanlage/Blatt/ Karyopse/Halm/Pollen- korn	51
Zea mays	Keim	732
Zea mays, Hy 2x07	Blatt	1045
<u>Iridaceae</u>		
Iris pseudoacorus	Same	49

Aliphatische Ammoniumverbindungen



	R	A
Tetramin	CH <sub>3</sub>	OH OH
Cholin	CH <sub>2</sub> -CH <sub>2</sub> -OH	OH OH
3-Butenyl-trimethylammoniumchlorid	CH <sub>2</sub> -CH <sub>2</sub> -CH=CH <sub>2</sub>	Cl
Muscaridin	(CH <sub>2</sub> ) <sub>3</sub> -CH(OH)-CH(OH)-CH <sub>3</sub>	OH

Tetramin

Angiospermae (Dicotyledoneae)

Capparaceae

Maerua edulis	Rhizom	1119
Maerua pseudopetalosa	Wurzel	410
Maerua pseudopetalosa	Wurzel,g./Stengel,g./ Blatt,g./Same,g.	411

Cholin

Bacteriophyta

Lactobacteriaceae

Lactobacillus casei	440
Lactobacillus plantarum	440
Lactobacillus plantarum, 8014 (ATCC)	442
Leuconostoc mesenteroides	440
Pediococcus cerevisiae	440
Streptococcus diacetylactis	940
Streptococcus lactis	940
Streptococcus thermophilus	940

Cyanophyta

Oscillatoriaceae

Lyngbya sp., 487 (CCA)	441
Phormidium luridum var. olivaceae, 426 (CCA)	441



Scytonemataceae	
Plectonema boryanum, 594 (CCA)	441
<u>Euglenophyta</u>	
Euglenaceae	
Euglena gracilis, 753 (CCA)	441
<u>Chlorophyta</u>	
Clorellaceae	
Chlorella pyrenoidosa	852
Chlorella pyrenoidosa, 252 (CCA)	441
Chlorella vulgaris	852
Chlorella sp.	1015
Coelastraceae	
Scenedesmus obliquus, UA-2-6	1015
Ulvaceae	
Ulva lactuca	441
Ulva pertusa	789
<u>Phaeophyta</u>	
Chordariaceae	
Chordaria flagelliformis	441
Heterochordaria abietina	1112
Desmarestiaceae	
Desmarestia aculeata	441
Fucaceae	
Ascophyllum nodosum	441
Fucus vesiculosus	441
Pelvetia canaliculata	227
Laminariaceae	
Laminaria agardhii	441
Laminaria angustata	1111
Laminaria digitata	441
Laminaria sp.	789
<u>Rhodophyta</u>	
Bangiaceae	
Porphyra umbilicalis	441
Ceramiaceae	
Ceramium rubrum	441
Delesseriaceae	
Phycodrys rubens	441
Gigartinaceae	
Chondrus crispus	441
Rhodomelaceae	
Polysiphonia elongata	441
Rhodophyllidaceae	
Cystoclonium purpureum	441
Rhodymeniaceae	
Rhodymenia palmata	227
<u>Fungi</u>	
Agaricaceae	
Agaricus bisporus	441
Agaricus campestris	838
Agaricus muscarius	391
Cortinellus shiitake	1267
Macrolepiota procera	1170



## Amanitaceae

Amanita caesarea		809
Amanita citrina		809
Amanita mappa		577
Amanita muscaria		52, 277, 348, 390, 441, 538, 561, 562, 809, 919, 920, 954, 964, 1270
Amanita muscaria	g.	577
Amanita muscaria	Pilz/Hut	586
Amanita pantherina		93, 809
Amanita pantherina	g.	577
Amanita phalloides		809
Amanita rubescens		809
Amanita rubescens	g.	577

## Aspergillaceae

Aspergillus nidulans, 16 643 (CMI)	Myzel	383
Aspergillus niger	Konidiospore	1110
Aspergillus niger	Myzel	441
Aspergillus oryzae, 17 299 (CMI)	Myzel	383
Aspergillus sydowi		1256
Aspergillus sydowi, 63 904 (CMI)	Myzel	383
Aspergillus terreus, Ab 2 (LSHTM)	Myzel	383
Penicillium aurantio-brunneum, P 2 (LSHTM)	Myzel	383
Penicillium chrysogenum, 62 728 (CMI)	Myzel	383
Penicillium citreo-roseum, P 22 (LSHTM)	Myzel	383

## Clavariaceae

Clavaria sp.		441
--------------	--	-----

## Clavicipitaceae

Claviceps purpurea	Sklerotium	811
Claviceps purpurea	Secale cornutum	109, 578
Claviceps purpurea	saprophyt. Kultur	723

## Copriniaceae

Coprinus atramentarius	Fruchtkörper	652
Coprinus comatus		643, 644
Coprinus micaceus		647
Panaeolus campamulatus	Karpophor	1174

## Cortinariaceae

Cortinarius alboviolaceus		809
Cortinarius bolaris		809
Cortinarius collinitus		809
Cortinarius fulmineus		809
Cortinarius largus		809
Cortinarius torvus		809
Cortinarius violaceus		809
Inocybe agglutinata	Karpophor, g.	898
Inocybe albodisca	Karpophor, g.	898
Inocybe cinnamomea	Karpophor, g.	898
Inocybe fastigiata		280
Inocybe geophylla	Karpophor, g.	898
Inocybe kaufmanii	Karpophor, g.	898
Inocybe lacera	Karpophor, g.	898
Inocybe lanuginosa	Karpophor, g.	898

Inocybe lilacina	Karpophor, g.	898
Inocybe mixtilis	Karpophor, g.	898
Inocybe napipes	Karpophor	1090
Inocybe napipes	Karpophor, g.	898
Inocybe nigrescens	Karpophor, g.	898
Inocybe obscuroides	Karpophor, g.	898
Inocybe olympiana	Karpophor, g.	898
Inocybe pallidipes	Karpophor, g.	898
Inocybe patouillardii		280, 650
Inocybe picrosma	Karpophor, g.	898
Inocybe praetervisa	Karpophor, g.	898
Inocybe pudica	Karpophor, g.	898
Inocybe sororia	Karpophor, g.	898
Inocybe terrifera	Karpophor, g.	898
Inocybe umbrina		280
Inocybe xanthomelas	Karpophor, g.	898
Inocybe sp., 1076; 1166; 1187; 1540; 1774; 1838; 2147; 2149; 3399; 3783; 3983; 4790; 4893; 4895; (MHUW)	Karpophor, g.	898
<b>Cryptococcaceae</b>		
Candida sp., K2-9		571
Rhodotorula rubra, 38 784 (CMI)	Myzel	383
<b>Dematiaceae</b>		
Cladosporium cladosporioides, 49 625 (CMI)	Myzel	383
<b>Helvellaceae</b>		
Gyromitra esculenta		96
Gyromitra esculenta	g.	577
Morchella hortensis	Myzel	628
<b>Hydnaceae</b>		
Hydnum aspratun		445
Hydnum imbricatum	Fruchtkörper	1171
Hydnum versipelle		53
<b>Hygrophoraceae</b>		
Cantharellus cibarius		838
Cantharellus cibarius	g.	577
<b>Melanosporaceae</b>		
Neurospora crassa	Myzel	441
Neurospora crassa, 19 419; 53 238 (CMI)	Myzel	383
Neurospora crassa, 47 904	Myzel	378, 1252
Neurospora sitopholia, (+), 63 919 (CMI)	Myzel	383
Neurospora sitopholia, (-), 63 920 (CMI)	Myzel	383
<b>Mucoraceae</b>		
Rhizopus nigricans	Myzel	441
<b>Phallaceae</b>		
Phallus impudicus		550
Phallus impudicus	Fruchtkörper, jung	651
<b>Polyporaceae</b>		
Boletus aureus		809
Boletus edulis		441, 809, 838
Boletus edulis	g.	577, 883
Boletus elegans		506
Boletus erythropus	Fruchtkörper	1171
Boletus luridus		92, 809

Boletus luteus		506
Boletus rufus		809
Boletus satanas		809
Boletus scaber		809
Lenzites sepiaria		1275
Polyporus betulinus		441
Polyporus hispidus		1277
Polyporus pinicola		1284
Polyporus sulphureus		645, 649, 704, 1288
Rhodophyllaceae		
Entoloma clypeatum		809
Entoloma lividum		809
Russulaceae		
Lactarius chrysaureus		809
Lactarius deliciosus		809
Lactarius deliciosus	g.	577
Lactarius piperatus		1273
Lactarius scrobiculatus		1274
Lactarius torminosus		809
Lactarius torminosus	g.	577
Lactarius uvidus		809
Lactarius vellereus		809
Lactarius zonarius		809
Russula albonigra		809
Russula caerulea		809
Russula cyanoxantha		809
Russula cyanoxantha	Fruchtkörper	1171
Russula emetica		557, 809
Russula foellus		809
Russula fragilis		809
Russula lepida		809
Russula nigricans		809
Russula ochroleuca		809
Russula pseudoviolacea		809
Russula sardonia		809
Saccharomycetaceae		
Saccharomyces cerevisiae		441, 811
Saccharomyces sp., Brauereihefe		1188
Saccharomyces sp., Preßhefe		304
Sclerodermataceae		
Scleroderma vulgare		1276
Scleroderma vulgare	g.	577
Scleroderma sp.		441
Sporobolomycetaceae		
Sporobolomyces roseus, 43 529 (CMI)	Myzel	383
Sporobolomyces salmonicolor, 56 578 (CMI)	Myzel	383
Strophariaceae		
Namatoloma fasciculare		1272
Namatoloma fasciculare	g.	577
Pholiota squarrosa		1273
Thelephoraceae		
Craterellus cornucopioides		646
Tremellaceae		
Exidia auricula		1275

Tricholomataceae		
<i>Armillaria mellea</i>	g.	577
<i>Clitocybe dealbata</i>	Karpophor	436
<i>Panellus stypticus</i>		1275
<i>Tricholoma albobrunneum</i>		809
<i>Tricholoma columbetta</i>		809
<i>Tricholoma equestre</i>		809
<i>Tricholoma equestre</i>	g.	577
<i>Tricholoma focale</i>		809
<i>Tricholoma sulfureum</i>		809
<i>Marasmius scorodonis</i>		310
Tuberculariaceae		
<i>Fusarium</i> sp.	Myzel	383
Ustilaginaceae		
<i>Ustilago maydis</i>		653
<i>Ustilago maydis</i>	Spore	63
<i>Ustilago scitaminea</i> , 35 616 (CMI)	Myzel	383
<u>Lichenes</u>		
Cladoniaceae		
<i>Cladonia alpestris</i>		229
<i>Cladonia rangiferinina</i>		229
<i>Stereocaulon paschale</i>		229
Lecanoraceae		
<i>Haematomma ventosum</i>		229
Parmeliaceae		
<i>Cetraria glauca</i>		229
<i>Cetraria islandica</i>		229
<i>Cetraria juniperina</i>		229
<i>Cetraria nivalis</i>		229
Peltigeraceae		
<i>Nephroma articum</i>		229
<i>Nephroma laevigatum</i>		229
<i>Nephroma parile</i>		229
<i>Peltigera aphthosa</i>		229
<i>Peltigera canina</i>		229
<i>Peltigera malacea</i>		229
<i>Peltigera polydactyla</i>		229
Rocellaceae		
<i>Rocella fucoformis</i>		631
<i>Rocella hypomecha</i>		631
<i>Rocella linearis</i>		631
Sphaerophoraceae		
<i>Sphaerophorus globosus</i>		229
Stictaceae		
<i>Lobaria scrobiculata</i>		229
Teloschistaceae		
<i>Xanthoria parietina</i>		229, 1050
Umbilicariaceae		
<i>Gyrophora vellea</i>		229
Usneaceae		
<i>Alectoria jubata</i>		229
<i>Usnea dasypoga</i>		229

Pteridophyta

## Polypodiaceae

Aspidium filix mas	Spore	531
Polypodium sp., Dheki sag		14

Gymnospermae

## Ephedraceae

Ephedra alata	Stengel	811
Ephedra altissima	Stengel	811
Ephedra campylopoda	Stengel	811
Ephedra distachia	Stengel	811

## Pinaceae

Pinus cembra	Fruchtfleisch	1189
Pinus cembra	Kern ohne Schale u. Haut	1006
Pinus pinea	Keimling	547
Pinus silvestris	Pollen	529

Angiospermae (Dicotyledoneae)

## Aceraceae

Acer campestre	Rinde	289
----------------	-------	-----

## Alangiaceae

Alangium lamarckii	Blatt	227, 939
--------------------	-------	----------

## Amaranthaceae

Amaranthus paniculatus	Kraut	101
Amaranthus retroflexus	Blatt/Blüte/Wurzel	1092

## Anacardiaceae

Pistacia vera	Fruchtfleisch	1189
---------------	---------------	------

## Apocynaceae

Amsonia angustifolia	Blatt/Same/Wurzel/ Stengel	1135
Nerium oleander		495
Rauwolfia obscura	Blatt	1132
Strophantus gratus	Same	1124
Strophantus hispidus	Same	1126
Strophantus hispidus	Wurzelrinde	500
Strophantus kombe	Same	1127
Thevetia nereifolia		667
Vinca lancea	Pflanze, ganz	811
Vinca rosea	Wurzel	811

## Aquifoliaceae

Ilex paraguariensis	Blatt	595
---------------------	-------	-----

## Araliaceae

Aralia chinensis var. grabrescens	Rinde	605
Aralia cordata	Keimling	718
Panax ginseng	Wurzel	1109

## Aristolochiaceae

Aristolochia clematitidis	Blatt/Blüte/Rhizom	830
---------------------------	--------------------	-----

## Asclepiadaceae

Calotropis procera		666
Gymnema sylvestre		694
Gymnema sylvestre	Blatt	1037
Pergularia tomentosa	Blatt/Stamm/Wurzel	668

## Balsaminaceae

Impatiens noli tangere		1286
------------------------	--	------

Betulaceae		
Corylus avellana	Fruchtfleisch	1189
Corylus maxima	Fruchtfleisch	1189
Boraginaceae		
Anchusa officinalis	Blatt	733
Anchusa officinalis	Wurzel	360
Borago officinalis	Blatt/Blüte	290
Cynoglossum officinale	Kraut	1104
Cynoglossum officinale	Wurzel	360, 1104
Cynoglossum officinale	unterird. Teile/ oberird. Teile	479
Echinum vulgare		1210
Symphytum officinale	Wurzel	121, 360, 811
Symphytum officinale	Blatt	290
Symphytum tuberosum	Blatt	290
Symphytum uplandicum	Blatt	290
Cactaceae		
Lophophora williamsii		492
Campanulaceae		
Siphocampylus foliosus	Pflanze, ganz	201
Capparaceae		
Capparis decidua	Fruchtschale	318
Ritchiea fragariodora	Wurzel	166
Caprifoliaceae		
Sambucus nigra	Cortex Sambuci	460
Sambucus nigra	Flores Sambuci	592
Sambucus nigra	Blüte	623
Caricaceae		
Carica papaya	Blatt	785
Caryophyllaceae		
Lychnis githago	Same	702
Celastraceae		
Catha edulis	Blatt/Stamm	21
Chenopodiaceae		
Beta vulgaris		14
Beta vulgaris var. altissima	Same	191
Beta vulgaris var. conditiva	Rübe	1173
Beta vulgaris var. esculenta	Same	486
Beta vulgaris var. rapa	Wurzelsaft	1047
Chenopodium ambrosioides		811
Salicornia herbacea		1287
Spinacia oleracea	Blatt	273
Combretaceae		
Combretum micranthum	Blatt	786, 811
Combretum micranthum		505
Compositae		
Achillea asplenifolia		1172
Achillea fragrantissima	oberird. Teile, g.	1019
Achillea millefolium	Herba Millefolii	460
Achillea millefolium		450, 1172
Achillea millefolium	Kraut	806
Achillea nobilis var. ochroleuca		1172
Anthenis nobilis	Blütenkopf	845
Arnica chamissonis	Blütenkopf	978
Arnica montana	Blüte	811, 1121



Artemisia abrotanum	D.	579
Artemisia cina	Blütenkopf	459
Artemisia vulgaris var. indica max	oberird. Teile, jung	1263
Chrysanthemum cinerariifolium	Flores Chrysanthemi cinerariifolii	1268
Chrysanthemum cinerariifolium	Blütenknospe	811
Chrysanthemum coronarium	oberird. Teile, jung	1263
Chrysanthemum sinense	Blüte/Blatt	1263
Cichorium intybus	Wurzel	1009, 1010
Dahlia variabilis	Knolle	1009, 1010
Erigeron crispus	Pflanze	710
Eupatorium cannabinum var. syriacum	Blatt	804
Helianthus annuus	Flores Helianthi annui	960
Helianthus annuus	Same	1002
Helianthus tuberosus	Knolle	1010
Kleinia aizoides	Blatt	783
Lactuca sativa		14
Matricaria chamomilla	Flores Chamomillae	460
Matricaria chamomilla		66
Matricaria chamomilla	Blüte, g.	67
Matricaria chamomilla	Blütenkopf	846
Matricaria chamomilla	Stiel/Blüte	485
Matricaria matricarioides	D.	688
Onopordum acanthium		96
Onopordum alexandrinum	oberird. Teile	1205
Petasites officinalis	Rhizom + Wurzel	1281
Saussurea albescens	Blatt	803
Scorzonera hispanica		1010
Scorzonera hispanica	Wurzel	1009
Senecio aegyptius		324
Senecio desfontaine		324
Sonchus arvensis	Pflanze, blühend	1073
Spilanthes oleracea	Herba Spilanthis	321
Taraxacum officinale	Pflanze + Blüte	1280
Taraxacum officinale	Kraut + Wurzel	121
Taraxacum officinale	Wurzel	811, 844
Tussilago farfara	Blatt, g.	1283
Xanthium occidentale	Pflanze + Wurzel	512
Xanthium strumarium	Blatt	513
Convolvulaceae		
Ipomoea batatas	eßbarer Teil	273
Cruciferae		
Brassica campestris		14
Brassica juncea		14
Brassica napus	Same	191
Brassica napus	Blatt	273
Brassica napus var. napobrassica		1010
Brassica oleracea	Blatt	273
Brassica oleracea	Kohl, ohne grüne Außenblätter	1262
Brassica oleracea var. botrytis		14
Brassica oleracea var. capitata		14, 218
Brassica oleracea var. capitata alba		507
Capsella bursa pastoris		460, 733, 811
Capsella bursa pastoris	Kraut	121, 482
Capsella bursa pastoris	Stiel/Blüte	485



<i>Capsella bursa pastoris</i>	Blatt/Stiel + Wurzel	482
<i>Capsella bursa pastoris</i>	Herba Bursae pastoris	564
<i>Cheiranthus cheiri</i>	Same	872
<i>Cochlearia officinalis</i>	Herba Cochleariae	460
<i>Raphanus sativus</i>		14
<b>Cucurbitaceae</b>		
<i>Citrullus colocynthis</i>	Stamm/Blatt/Wurzel/ Same/Fruchtfleisch/ Fruchtschale	948
<i>Cucumis sativus</i>	Keimling	547
<i>Cucumis sativus</i>	Frucht	548
<i>Cucurbita maxima</i>		14
<i>Cucurbita pepo</i>	Same	1001
<i>Cucurbita pepo</i>	Keimpflanze	555
<i>Cucurbita pepo</i>	Keimling, etiol.	982
<i>Lagenaria vulgaris</i>		14
<i>Luffa aegyptiaca</i>		14
<i>Sechium edule</i>	Frucht	1264
<b>Dipsacaceae</b>		
<i>Knautia silvatica</i>	Blatt	1278
<b>Elaeagnaceae</b>		
<i>Hippophae rhamnoides</i> , Novost Altaja; Dar Katuni; B - 27	Fruchtfleisch	1189
<b>Ericaceae</b>		
<i>Arbutus andrachne</i>	Wurzel/Organe, grün	922
<i>Ledum palustre</i>		1062
<i>Loiseleuria procumbens</i>	Wurzel/ Organe, grün	922
<i>Rhododendron hirsutum</i>	Blatt	297
<b>Erythroxylaceae</b>		
<i>Erythroxylum coca</i>	Blatt	811
<b>Euphorbiaceae</b>		
<i>Euphorbia cyparissias</i>	Kraut	1210
<i>Hevea sp.</i>	Latex	23
<i>Phyllanthus emblica</i>		14
<i>Ricinus communis</i>	Keimling	547
<b>Fagaceae</b>		
<i>Fagus silvatica</i>	Frucht	94, 256
<i>Fagus silvatica</i>	Same	91, 413
<b>Geraniaceae</b>		
<i>Erodium cicutarium</i>		260
<b>Globulariaceae</b>		
<i>Globularia alypum</i>	Blatt	1131
<i>Globularia nudicaulis</i>	Blatt	1281
<b>Guttiferae</b>		
<i>Hypericum calycinum</i>	Blatt	1018
<i>Hypericum densiflorum</i>	Blatt	1018
<i>Hypericum elatum</i>	Blatt	1018
<i>Hypericum galioides</i>	Blatt	1018
<i>Hypericum patulum</i>	Blatt	1018
<i>Hypericum perforatum</i>	Kraut	121
<i>Hypericum perforatum</i>	Stengel+Blatt	1285
<b>Hippocastanaceae</b>		
<i>Aesculus hippocastanum</i>	Same	97, 580
<b>Juglandaceae</b>		
<i>Carya illinoensis</i>		273
<i>Carya pecan</i>	Fruchtfleisch	1189
<i>Juglans regia</i> , Ukalovskij; Tankovyj	Fruchtfleisch	1189

## Labiatae

Ajuga reptans	oberird. Teile	1268
Ajuga reptans	Blüte	811
Ballota foetida		811
Betonica officinalis	Herba Betonicae	1009
Betonica officinalis	Kraut	1210
Elsholtzia patrinii		1102
Elsholtzia stauntonii		1103
Galeopsis grandiflora	Herba Galeopsidis grandiflorae	1268
Glechoma hederacea	Herba Hederaceae terrestris	1268
Glechoma hederacea	Blüte	811
Lamium album	Blüte	607, 811
Leonurus cardiaca		811
Leonurus quinquelobatus	Herba Leonuri quinquelobati	824
Leonurus quinquelobatus	Kraut	576
Leonurus sp.		184
Marrubium vulgare		817
Marrubium vulgare	Pflanze, ganz, g.	59
Marrubium vulgare	Kraut, g.	503
Marrubium vulgare	Blüte	811
Melissa officinalis		811
Melissa officinalis	Kraut, g.	503
Mentha aquatica	Blatt	350
Mentha piperita		811
Mentha piperita	Blatt, g.	503
Origanum vulgare		811
Orthosiphon pallidus	Pflanze	62
Rosmarinus officinalis	Flores Rosmarini	1268
Rosmarinus officinalis		811
Salvia officinalis		811
Salvia pratensis		1010
Salvia pratensis	oberird. Teile	1009
Stachys affinis	Knolle	1007, 1010
Stachys sieboldii	Knolle	999
Stachys silvatica	oberird. Teile	1009
Stachys silvatica	Knolle	1007, 1010
Stachys tubifera		1210
Stachys tubifera	oberird. Teile	1009
Teucrium botrys		369
Teucrium chamaedrys		369, 811
Teucrium montanum		369
Thymus vulgaris	Kraut, g.	503
Thymus vulgaris		811

## Lauraceae

Cinnamomum zeylanicum		14
-----------------------	--	----

## Leguminosae

Abrus precatorius	Blatt + Stamm/ Same/Wurzel	329
Afrormosia harms	Rinde	78
Arachis hypogaea		14, 218
Arachis hypogaea	Same	273, 725,
		993
Cajanus indicus		14, 218
Cajanus indicus	Same/Same, gekeimt	176
Canavalia ensiformis	Same	1210
Cicer arietinum		14, 218
Cicer arietinum	Same	176
Cicer arietinum	Frucht	1290
Cytisus laburnum		816

Desmodium cephalotes	Wurzel	333
Desmodium gyrans	Blatt/Wurzel	332
Desmodium tiliarifolium	Wurzel	335
Desmodium triflorum	Blatt	337, 338
Desmodium triflorum	Wurzel/Stengel	338
Dolichos biflorus		218
Dolichos lablab		218
Dolichos lablab	Bohne	14
Galega officinalis		811, 884
Genista raetam	Blüte	288
Glycine max		486, 738
Glycine max	Blatt/Stengel	138, 548
Glycine max	Bohne	273, 548,
		916, 1001
Glycine max	Keimling	548, 916,
		983
Glycine max	Fruchthülle	548
Glycine max	Keimblatt/Hypokotyl/ Epikotyl/Wurzel/Blatt	1153
Glycine max, Dunfield; Earlyana; Goldsoy; Habaro; Illini; Lincoln; Mandarin (Ottawa); Mandarin 507; Mingo; Mukden; Oyden, Richland; Scioto	Bohne	344
Glycine soya	Keimpflanze	998
Glycine soya	Keimpflanze, etiol.	983
Glycine soya	Same	811, 1001
Glycyrrhiza glabra	Wurzel	1071
Lathyrus cicera	Same	460
Lathyrus sativa	Same	460
Lens esculenta		14
Lens esculenta	Same	176, 456
Lupinus albus	Keimpflanze, etiol.	998
Lupinus luteus	Keimling	986
Lupinus luteus	Keimling, etiol.	781, 982,
		993
Lupinus luteus	Same	1005
Medicago sativa	Keimling, etiol.	888, 991
Medicago sativa	Saft	905, 1186,
		1187
Medicago sativa	Blatt	273
Mucuna pruriens	Blatt/Wurzel/Hülse/ Hülsenhaare/Same	334
Phaseolus aureus	Hypokotyl/Kotyledon	252
Phaseolus multiflorus	Same	1210
Phaseolus mungo		14, 218
Phaseolus mungo	Same	176
Phaseolus radiatus		14, 218
Phaseolus radiatus	Same	176
Phaseolus roxburghi	Same	176
Phaseolus vulgaris	Blatt/Stengel/Blüte/ Frucht	548
Phaseolus vulgaris	Same/Hülse, ohne Same	827
Pisum arvense	Same	1012
Pisum sativum		14, 218
Pisum sativum	Keimpflanze	547, 548,
		997
Pisum sativum	Pflanze	1000, 1001,
		1009
Pisum sativum	Frucht/Blüte	548
Pisum sativum	Same	888, 993,
		1000, 1001,
		1292
Pisum sativum	Samenhülse	1000, 1001

Pisum sativum, Black eyed pea	Same	176
Pisum sativum, Pyramotor	Same	176
Pisum sativum, Zuckererbse	Same/Samenhülle, unreif	1011
Trifolium pratense	Same	191
Trigonella corniculata	Same	37
Trigonella foenum graecum		14
Trigonella foenum graecum	Same	454, 457, 811, 1292
Vicia sativa	Same	635, 984, 985, 993, 1001, 1009
Vicia sativa	Samenhülse, unreif	1009
Vicia sativa	Keimpflanze	988, 991, 993, 994, 1001
Vicia sativa	Keimpflanze, etiol.	989, 993
Vigna catjang		14, 218
<b>Linaceae</b>		
Linum usitatissimum	Same	693
Linum usitatissimum, B 5585; B Golden; Bison; Buda; CI 976; CI 977; NS 3092; Renew; Royal	Same	344
<b>Loranthaceae</b>		
Loranthus europaeus	Blatt	262, 263
Loranthus europaeus	Beere	262
Viscum album		1242
Viscum album	Herba Visci albi	924
Viscum album	Kraut, g.	503
Viscum album	Kraut	121
Viscum album	Blatt	255, 811
Viscum album	Bodenblatt	925
Viscum album	Frucht	255, 263
Viscum album	Zweig	263
Viscum album (auf Laubholz)		1244
Viscum album (auf Populus alba)	Blatt + jüngste Stengelglieder	262
<b>Lythraceae</b>		
Lythrum salicaria		159
<b>Magnoliaceae</b>		
Magnolia acuminata	Stamm	490
<b>Malpighiaceae</b>		
Banistereopsis argentea	Blatt	330, 331
<b>Malvaceae</b>		
Althaea officinalis	Radix Althaeae	309
Gossypium herbaceum	Same	91
Gossypium sp.	Zweig mit Blätter + Blüten, g.	849
Gossypium sp.	Samenkern	273
Gossypium sp.	Wurzelausscheidung	1091
Gossypium sp.	Same	273, 690
<b>Menyanthaceae</b>		
Menyanthes trifoliata		1279, 1282
<b>Monimiaceae</b>		
Doryphora sassafras	Blatt	323
Doryphora sassafras	Rinde	180
<b>Moraceae</b>		
Cannabis indica		811
Cannabis indica	Herba Cannabis indicae	708
Cannabis indica	Kraut	455

<i>Cannabis sativa</i>	Same	677, 993, 1004, 1292
<i>Cannabis sativa</i>	Blatt	1184
<i>Cannabis sativa</i>	Blatt, g./ Sproßspitze	921
<i>Humulus lupulus</i>		171, 363, 851
<i>Morus alba</i> var. <i>latifolia</i>	Blatt	1263
Myrtaceae		
<i>Eugenia chequen</i>	Blatt	1216, 1217
Nyctaginaceae		
<i>Mirabilis jalapa</i>	oberird. Teile	1268
Oleaceae		
<i>Olea europaea</i>		276
<i>Olea europaea</i>	Blatt	923
<i>Olea europaea</i> , Nikitskaja-1; Tlemsen; Askolano; Zejtun	Fruchtfleisch	1189
Onagraceae		
<i>Chamaenerium angustifolium</i>	Blatt	858
Papaveraceae		
<i>Bocconia microcarpa</i>	Wurzel	355
<i>Chelidonium majus</i>		811
<i>Chelidonium majus</i>	Kraut + Wurzel, g.	606
<i>Chelidonium majus</i>	Kraut, g.	503
<i>Corydalis govani</i>	Wurzel	257
<i>Fumaria officinalis</i>	Wurzel/Stengel/Blatt/ Frucht	1093
<i>Fumaria parviflora</i>	Wurzel/Stengel/Blatt/ Frucht	1093
<i>Fumaria vaillantii</i>	Wurzel/Stengel/Blatt/ Frucht	1093
Passifloraceae		
<i>Passiflora incarnata</i>		811
Pedaliaceae		
<i>Sesamum indicum</i>	Kuchen	993, 1010
<i>Sesamum indicum</i>	Same	995
Plantaginaceae		
<i>Plantago major</i>	Blatt	1210
<i>Plantago major</i> var. <i>asiatica</i>	Same	787
Primulaceae		
<i>Lysimachia nummularia</i>	Blüte/Blatt/Stengel/ Rhizom mit Wurzel	572
Ranunculaceae		
<i>Aconitum napellus</i>	Stengel/Same/Blatt/ Blüte/Frucht, unreif/ Wurzelknolle	287
<i>Adonis vernalis</i>	Blatt	421
<i>Caltha palustris</i>		842
<i>Caltha palustris</i>	Pflanze	843
<i>Ranunculus sceleratus</i>	Wurzel+Stamm+Blatt+ Frucht	913
<i>Trollius europaeus</i>	oberird. Organe	305
Rhamnaceae		
<i>Rhamnus catharticus</i>	Saft	1026
Rosaceae		
<i>Alchemilla alpina</i>	Stengel + Blatt	1191
<i>Crataegus oxyacantha</i>		811
<i>Crataegus</i> sp.	Blatt	298



<i>Fragaria</i> sp.	Frucht	1085
<i>Malus silvestris</i>		14
<i>Potentilla anserina</i>	D.	1166
<i>Prunus mahaleb</i>	Kern	266
<i>Prunus</i> sp., Kirsche	Frucht	1085
<i>Rosa hybrida</i> , Voroncovskaja Nr. 1	Fruchtfleisch	1189
<i>Rosa rugosa</i>	Fruchtfleisch	1189
<i>Rosa</i> sp.	Blatt/Blüte	1085
<b>Rubiaceae</b>		
<i>Cephaelis ipecacuanha</i>	Wurzel	593
<i>Coffea arabica</i>	Bohne	811
<i>Coffea</i> sp., Santos	Bohne	779
<b>Rutaceae</b>		
<i>Citrus aurantium</i>	Blatt	1008, 1009
<i>Citrus limon</i>	Saft/Schale/Frucht, ohne Schale u. Kerne	85
<i>Citrus medica</i> ssp. <i>limonum</i>	Cortex Citri Fructus	1268
<i>Citrus sinensis</i>	Saft	866
<i>Citrus sinensis</i> , Kalifornische Nabelfrucht	Saft/Schale/Frucht, ohne Schale u. Kerne	85
<i>Citrus sinensis</i> , Valencia- Orangen	Saft/Schale/Frucht, ohne Schale u. Kerne	85
<i>Dictamnus albus</i>	Wurzel	1128
<i>Fagara pentandra</i>	Rinde	261
<b>Sapindaceae</b>		
<i>Paullinia cupana</i>		347
<i>Paullinia sorbilis</i>	Frucht	838
<b>Scrophulariaceae</b>		
<i>Antirrhinum hispanicum</i>	oberird. Teile	122
<i>Antirrhinum majus</i>		385
<i>Antirrhinum molle</i>	oberird. Teile	122
<i>Antirrhinum mollissimum</i>	oberird. Teile	122
<i>Antirrhinum orontium</i>	oberird. Teile	386, 387
<i>Digitalis ferruginea</i>	Blatt	1165
<i>Digitalis lanata</i>	Blatt, g.	503, 774
<i>Digitalis lanata</i>	Blatt	811
<i>Digitalis lutea</i>	Blatt	811
<i>Digitalis purpurea</i>	Blatt, g.	774
<i>Digitalis purpurea</i>	Blatt	811
<i>Digitalis thapsi</i>	Blatt	811
<i>Euphrasia officinalis</i> (E. con- fusa + E. nemorosa + E. pseu- dokernerii)	oberird. Teile	388
<i>Fabiana imbricata</i>	Blatt/Holz	596
<i>Veronica spicata</i>	Kraut	121
<b>Solanaceae</b>		
<i>Atropa belladonna</i>	Extrakt	592
<i>Atropa belladonna</i>	Blatt	811
<i>Capsicum annuum</i>	Same	1251
<i>Datura sanguinea</i>	Same (5 Jahre alt)	615
<i>Hyoscyamus niger</i>	Extrakt	592
<i>Hyoscyamus niger</i>	Same	811
<i>Lycium barbarum</i>	Kraut	1210
<i>Lycium vulgare</i>	Krone	811
<i>Lycopersicon esculentum</i>		218
<i>Nicotiana rustica</i>	Same	780
<i>Nicotiana tabacum</i>	Blatt	811
<i>Nicotiana tabacum</i>	Same	780
<i>Scopolia japonica</i>	Wurzel	962

Solanum melongena		14, 218, 295
Solanum tuberosum		218
Solanum tuberosum	Knolle	14, 273, 680, 992, 993, 996, 1266
Withania somnifera	Wurzel	514, 904, 1013
<b>Sterculiaceae</b>		
Abroma augusta	Wurzel	228
Cola acuminata	Bohne	811
Theobroma cacao	Same	811, 837
Theobroma cacao	Pflanzenteile	347
<b>Theaceae</b>		
Camellia sinensis	Same	838
Camellia sinensis	Blatt	811, 837, 1085
<b>Tiliaceae</b>		
Grewia elysei		812
Tilia sp.	Blatt/Blüte	1085
<b>Umbelliferae</b>		
Apium graveolens	Knolle	1010
Coriandrum sativum		14
Cuminum cyminum		14
Cuminum cyminum	Frucht	811
Daucus carota		14, 273, 1010
Daucus carota	Same	319
Pimpinella anisum	Fructus Anisi	460
<b>Urticaceae</b>		
Urtica dioica	Blüte/Stiel	485
<b>Valerianaceae</b>		
Valeriana officinalis ssp. collina	Wurzel/Stengel/ Stengelblatt/Ro- settenblatt	1105
Valeriana officinalis ssp. exaltata	Wurzel/Stengel/ Stengelblatt/Ro- settenblatt	1105
Valeriana sambucifolia	Wurzel/Stengel/ Stengelblatt/Ro- settenblatt	1105
<b>Vitaceae</b>		
Vitis vinifera	Stempel/Ranke/Blüte/ Traube, unreif/Traube, reif/Ausschwitzung am Blattstiel	1085
Vitis vinifera	Ausschwitzung an junger Blattbildung	1086
Vitis vinifera	Blatt	231, 1085
<u>Angiospermae (Monocotyledoneae)</u>		
<b>Araceae</b>		
Acorus calamus	Rhizom, g.	503
Acorus calamus	Rhizom	594, 811
Acorus calamus	Wurzel	485, 1125
Acorus calamus	Stiel	121
Pinellia ternata		802



Typhonium trilobatum		218
Gramineae		
Avena sativa	Same	42, 273, 888, 1154
Avena sativa, Clinton; Jogold; Marion; Tama; Vicland	Same	344
Bambusa arundinacea	Rohr	1151, 1152
Eleusine coracana		218
Hordeum vulgare, Peragis; mittel- früh II (Wintergerste); Saale (Sommergerste)	Keimwurzel	864
Hordeum sp.	Same	42, 686
Hordeum sp., Newal; O.A.C. 21; Plush; Regal; Rex; Velvet; Wisc. Nr. 38	Same	344
Hordeum sp., Olli	Same	273
Oryza sativa	Kleie	304, 314, 1162, 1263
Oryza sativa	Samenschale	249
Oryza sativa	Same	14, 176
Oryza sativa	Same, poliert	218, 273
Oryza sativa	Same, gekeimt	176
Panicum miliaceum		14
Pennisetum typhoideum		218
Secale cereale	Same	1263
Secale cereale	Same, reifend	530
Secale sp.	Ähre, reifend	977
Secale sp.	Same	42
Sorgum vulgare		218
Triticum aestivum		14, 218
Triticum aestivum	Primärblatt	536
Triticum aestivum	Same/Same, gekeimt	176
Triticum aestivum	Keimling	548, 993
Triticum aestivum	Samenembryo	850
Triticum aestivum	Pflanze	548
Triticum sp.		149, 888
Triticum sp.	Keim	273, 993, 977, 1003
Triticum sp.	Same	273
Triticum sp.	Kleie	273, 888
Triticum sp.	Ähre	548
Triticum sp., (hard winter wheats) Austin; Blackhull; Chiefkan; Comanche; Early Hull; Karmont; Red Chief; Ridit x Kanred; Tenmarq; Westar; Wichita; Yogo	Same	344
Triticum sp., (hard spring wheats) Mida; Newthatch; Regent; Rival; Thatcher	Same	344
Triticum sp., (soft winter wheats) Austin; Clarkan; Denton; Goens; Fairfield; Fulcaster; Fultz x Minturki; Mediterranean; Prairie; Red May; Trumbull; Wabash	Same	344
Zea mays	Pollen	26, 719
Zea mays	Quellwasser	40
Zea mays	Kolben/Griffel	548
Zea mays	Keimling	547, 548
Zea mays conv. amylacea	Endosperm	1120
Zea mays conv. saccharata	Endosperm	1120

Liliaceae		
Allium cepa		218
Asphodelus microcarpus	Knolle	380
Convallaria majalis	Kraut, g.	298, 503, 614
Gloriosa superba	Knolle	193
Hyacinthus sp.	Blüte	1085
Schoenocaulon officinale	Same	811
Urginea maritima	Bulbus Scillae	140
Veratrum album	Rhizom	811
Musaceae		
Musa paradisiaca		218
Orchidaceae		
Dendrobium wardianum	Pflanze	90
Eria jarensis		405
Microstylis wallichii	Pseudobulbe	79
Palmae		
Areca catechu	Same	458
Cocos nucifera	Same	993
Cocos nucifera	Endosperm	995
Elaeis guineensis	Same	993
Zingiberaceae		
Elettaria cardamomum		14

3-Butenyl-trimethylammoniumchlorid

Fungi

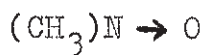
Amanitaceae	
Amanita muscaria	976

Muscaridin

Fungi

Amanitaceae	
Amanita muscaria	562, 920

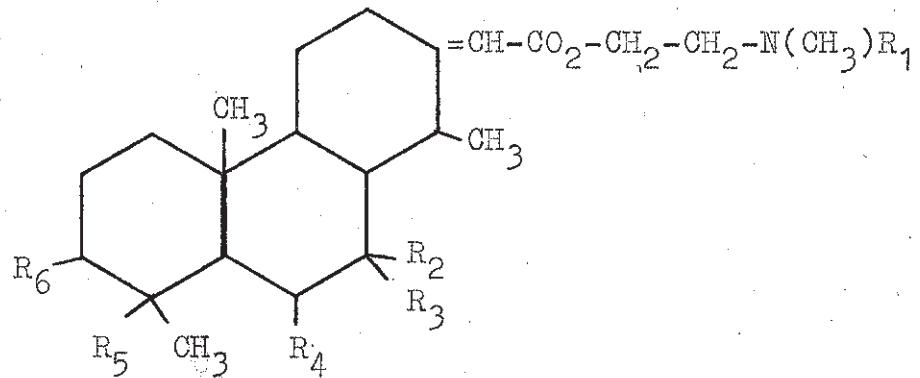
Aliphatische Aminoxide



Trimethylaminoxid

Angiospermae (Dicotyledoneae)

Asclepiadaceae	
Gymnema sylvestre	694
Gymnema sylvestre	Blatt 1037
Campanulaceae	
Cyanea capillata	720

Ester aliphatischer Amine

	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>	<u>R<sub>3</sub></u>	<u>R<sub>4</sub></u>	<u>R<sub>5</sub></u>	<u>R<sub>6</sub></u>
Norcassamidin	H	H	OH	H	CO <sub>2</sub> CH <sub>3</sub>	H
Norerythrostachamin	H	H	OH	H	CO <sub>2</sub> CH <sub>3</sub>	OH
Norerythrostachaldin	H	H	OH	H	CHO	OH
Ivorin	H	-O-	H	CH <sub>3</sub>	CO <sub>2</sub> CH <sub>3</sub>	CO <sub>2</sub> -CH=C(CH <sub>3</sub> ) <sub>2</sub>
Cassamidin	CH <sub>3</sub>	H	OH	H	CO <sub>2</sub> CH <sub>3</sub>	H
Coumidin	CH <sub>3</sub>	H	H	H	CH <sub>3</sub>	CO <sub>2</sub> -CH <sub>2</sub> -C(OH)-(CH <sub>3</sub> ) <sub>2</sub>
Cassaidin	CH <sub>3</sub>	H	OH	H	CH <sub>3</sub>	OH
Cassamin	CH <sub>3</sub>	-O-	H	CO <sub>2</sub> CH <sub>3</sub>	H	
Cassain	CH <sub>3</sub>	-O-	H	CH <sub>3</sub>	OH	
Erythrophlamin	CH <sub>3</sub>	-O-	H	CO <sub>2</sub> CH <sub>3</sub>	OH	
19-Hydroxycassain	CH <sub>3</sub>	-O-	H	CH <sub>2</sub> OH	OH	
Erythrophleguin	CH <sub>3</sub>	-O-	OH	CO <sub>2</sub> CH <sub>3</sub>	H	
β,β-Dimethylacrylylcassain	CH <sub>3</sub>	-O-	H	CH <sub>3</sub>	CO <sub>2</sub> -CH=C(CH <sub>3</sub> ) <sub>2</sub>	
Coumingin	CH <sub>3</sub>	-O-	H	CH <sub>3</sub>	CO <sub>2</sub> -CH <sub>2</sub> -C(OH)(CH <sub>3</sub> ) <sub>2</sub>	

NorcassamidinAngiospermae (Dicotyledoneae)

## Leguminosae

Erythrophleum chlorostachys

Rinde

284, 654,  
655

Erythrophleum guineense

Rinde

308

NorerythrostachaminAngiospermae (Dicotyledoneae)

## Leguminosae

Erythrophleum chlorostachys

Rinde

284, 655

NorerythrostachaldinAngiospermae (Dicotyledoneae)

## Leguminosae

Erythrophleum chlorostachys	Rinde	284
-----------------------------	-------	-----

IvorinAngiospermae (Dicotyledoneae)

## Leguminosae

Erythrophleum sp.	Rinde	210
Erythrophleum ivorense	Rinde	798

CassamidinAngiospermae (Dicotyledoneae)

## Leguminosae

Erythrophleum chlorostachys	Rinde	284, 655
Erythrophleum guineense	Rinde	777
Erythrophleum ivorense	Rinde	213, 981

CoumidinAngiospermae (Dicotyledoneae)

## Leguminosae

Erythrophleum guineense	Rinde	777
-------------------------	-------	-----

CassaidinAngiospermae (Dicotyledoneae)

## Leguminosae

Erythrophleum chlorostachys	Rinde	655
Erythrophleum couminga	Rinde	911
Erythrophleum guineense	Rinde	219, 272, 910, 929
Erythrophleum ivorense	Rinde	213

CassaminAngiospermae (Dicotyledoneae)

## Leguminosae

Erythrophleum guineense	Rinde	271, 272, 308
Erythrophleum ivorense	Rinde	213, 981

CassainAngiospermae (Dicotyledoneae)

## Leguminosae

Erythrophleum couminga	Rinde	911
Erythrophleum fordii	Rinde	35
Erythrophleum guineense	Rinde	192, 219, 221, 272, 929
Erythrophleum ivorense	Rinde	213
Erythrophleum sp.		808

ErythrophlaminAngiospermae (Dicotyledoneae)

## Leguminosae

Erythrophleum couminga	Rinde	911
Erythrophleum guineense	Rinde	271, 272, 777
Erythrophleum ivorense	Rinde	213, 981

19-HydroxycassainAngiospermae (Dicotyledoneae)

## Leguminosae

Erythrophleum ivorense	Rinde	212
------------------------	-------	-----

ErythrophleguinAngiospermae (Dicotyledoneae)

## Leguminosae

Erythrophleum guineense	Rinde	192, 636, 637, 929
Erythrophleum ivorense	Rinde	213, 981

 $\beta,\beta$ -Dimethylacrylyl-cassainAngiospermae (Dicotyledoneae)

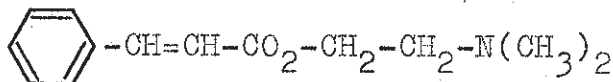
## Leguminosae

Erythrophleum ivorense	Rinde	211, 212
Erythrophleum sp.	Rinde	210

CouminginAngiospermae (Dicotyledoneae)

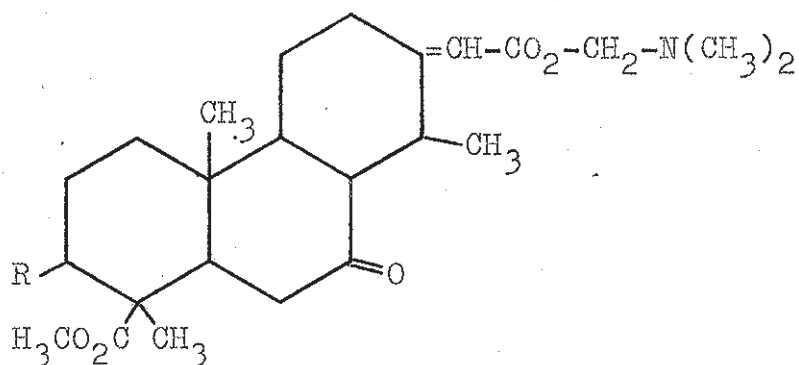
## Leguminosae

Erythrophleum couminga	Rinde	220, 911
------------------------	-------	----------

Zimtsäure-dimethylaminoethanolesterAngiospermae (Dicotyledoneae)

## Leguminosae

Erythrophleum chlorostachys	Blatt	365
-----------------------------	-------	-----



	<u>R</u>
Alkaloid a	H
Alkaloid b	OH

Alkaloid a/Alkaloid b

Angiospermae (Dicotyledoneae)

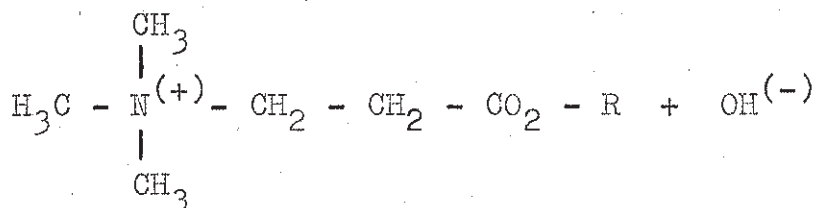
Leguminosae

Erythrophleum ivorense

Rinde

981

Ester aliphatischer Ammoniumverbindungen



	<u>R</u>
Acetylcholin	· CH <sub>3</sub>
Propionylcholin	CH <sub>2</sub> -CH <sub>3</sub>

Acetylcholin

Bacteriophyta

Lactobacteriaceae

Lactobacillus plantarum

1072

Fungi

Agaricaceae

Agaricus campestris

408, 801

Amanitaceae

Amanita muscaria

561, 562,  
920

Clavicipitaceae			
Claviceps purpurea	Secale cornutum		282
Russulaceae			
Lactarius blennicus			799
<u>Angiospermae (Dicotyledoneae)</u>			
Annonaceae			
Annona squamosa	Same		822
Apocynaceae			
Amsonia angustifolia	Blatt/Same/Wurzel		1135
Chenopodiaceae			
Spinacia oleracea	Blatt		28
Cruciferae			
Brassica napus var. napobrassica	Preßsaft		428
Brassica oleracea var. gongylodes	Preßsaft		428
Capsella bursa pastoris			155, 733
Capsella bursa pastoris	Kraut, g.		102
Cucurbitaceae			
Cucumis sativus	Preßsaft		428
Ebenaceae			
Diospyros kaki	Frucht		15
Loranthaceae			
Loranthus sp.			1241
Viscum album			1242
Viscum album	Frucht		255
Viscum album (auf Laubholz)			1244
Moraceae			
Artocarpus champeden	Same		187, 629
Artocarpus integra	Same		187, 629
Artocarpus integra	Blatt		187, 629,
			630
Artocarpus integra	Stamm		187, 630
Artocarpus integra	Wurzel		630
Artocarpus integrifolia	Same		822
Primulaceae			
Lysimachia nummularia	Blüte/Blatt/Stengel/ Rhizom + Wurzel		572
Lysimachia vulgaris	Kraut		572
Rosaceae			
Crataegus sp.			298
Scrophulariaceae			
Digitalis ferruginea	Blatt		1165
Digitalis lanata	Blatt		774
Digitalis purpurea	Blatt		774
Solanaceae			
Solanum tuberosum			800
Solanum tuberosum	Knolle		45, 680
Solanum tuberosum	Preßsaft		428
Umbelliferae			
Daucus carota	Preßsaft		428
Urticaceae			
Girardinia heterophylla			947
Laportea gigas	Brennhaar		634
Laportea moroides	Brennhaar		899
Urtica dioica	Blatt/Rinde/Rhizom/ Stele/Haar		270



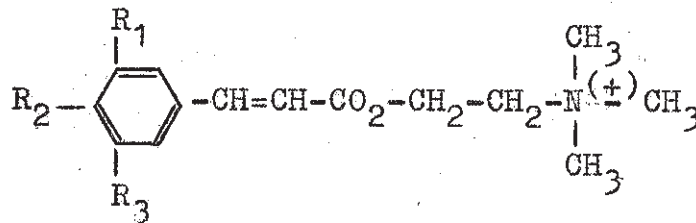
Urtica parriflora		946
Urtica urens	Brennhaar	182
Urtica urens	Brennhaar, Flüssigk.	269
Urtica urens	Blattgewebe, ohne Haare/Rinde/ Stele/Wurzel- haar/Hauptwurzel	270

### Propionylcholin

#### Angiospermae (Dicotyledoneae)

##### Loranthaceae

Viscum album ssp. Laubholzmistel (auf Apfelbaum)		740
---	--	-----



	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>
Isoferulasäurecholinester	OH	OCH <sub>3</sub>	H
Sinapin	OCH <sub>3</sub>	OH	OCH <sub>3</sub>

### Isoferulasäurecholinester

#### Angiospermae (Dicotyledoneae)

##### Cruciferae

Sibara virginica	Same	345
------------------	------	-----

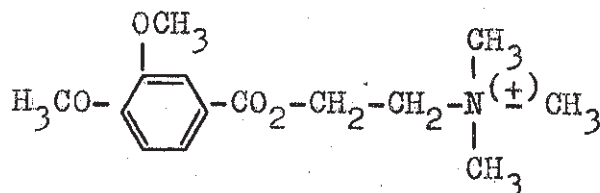
### Sinapin

#### Angiospermae (Dicotyledoneae)

##### Cruciferae

Aethionema pulchella	Same	980
Aethionema saxatile	Same	980
Alyssum ardurini	Same	980
Alyssum argenteum	Same	980
Alyssum bornmülleri	Same	980
Alyssum corymbosum	Same	980
Alyssum wulfenianum	Same	980
Arabis albida	Same	980
Arabis alpestris	Same	980
Arabis alpina	Same	980
Arabis aubreticoides	Same	980
Arabis bellidifolia	Same	980

Arabis pumila	Same	980
Arabis soyeri	Same	980
Biscutella auriculata	Same	980
Biscutella laevigata	Same	980
Brassica campestris var. oleifera	Same	685
Brassica iberifolia	Same	398
Brassica napus	Same	980, 1014
Brassica napus var. napobrassica	Same	979
Brassica napus var. rapifera		979
Brassica nigra		979
Brassica nigra	Same	317, 409
Brassica oleracea	Same	979
Brassica oleracea var. acephala	Same	979
Brassica oleracea var. capitata f. alba	Same	979
Brassica oleracea var. capitata f. rubra	Same	979
Brassica oleracea var. gongylodes	Same	979
Brassica oleracea var. sabauda	Same	979
Brassica campestris	Same	980
Bunias erucago	Same	980
Bunias orientalis	Same	980
Capsella bursa-pastoris	Same	980
Cheiranthus cheiri		979
Cochlearia officinalis	Same	980
Crambe maritima	Same	980
Crambe orientalis	Frucht	69
Crambe tataria	Frucht	69
Diplotaxis erucoides	Same	980
Draba nemorosa	Same	591
Erysimum alpinum	Same	980
Erysimum helveticum	Same	980
Erysimum pachycarpum	Same	980
Erysimum pumilum	Same	980
Erysimum vincoleucum	Same	980
Hesperis matronalis	Same	980
Isatis tinctoria	Same	980
Lepidium latifolium	Same	980
Lepidium ruderales	Same	980
Lepidium sativum	Same	979
Malcolmia maritima	Same	980
Nasturtium amphibium	Same	980
Nasturtium officinale	Same	980
Parrya menziessi	Same	980
Raphanus sativus	Same	979
Sinapis alba		43, 979
Sinapis alba	Rhizosphäre/Phyllo- sphäre	952
Sinapis arvensis	Same	980
Sisymbrium strictissimum	Same	980



Hesperalin (Veratroylcholin)

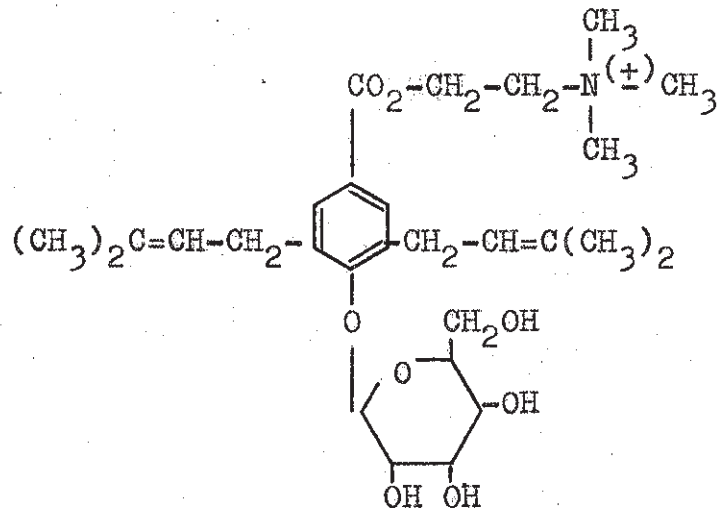
Angiospermae (Dicotyledoneae)

Cruciferae

Hesperis matronalis

Same

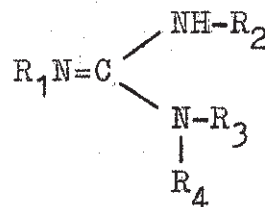
346

KuramerinAngiospermae (Monocotyledoneae)

Orchidaceae

Liparis kurameri

776

Guanidin und Guanidinderivate

	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>	<u>R<sub>3</sub></u>	<u>R<sub>4</sub></u>
Guanidin	H	H	H	H
Methylguanidin	H	H	H	CH <sub>3</sub>
Galegin	H	H	H	R <sub>5</sub>
4-Hydroxygalegin	H	H	H	R <sub>6</sub>
Pterogynin	H	H	R <sub>5</sub>	R <sub>5</sub>
N,N'-Diisopentenylguanidin	H	R <sub>5</sub>	H	R <sub>5</sub>
N,N',N''-Triisopentenylguanidin	R <sub>5</sub>	R <sub>5</sub>	H	R <sub>5</sub>

R<sub>5</sub> = CH<sub>2</sub>-CH=C(CH<sub>3</sub>)<sub>2</sub>R<sub>6</sub> = CH<sub>2</sub>-CH=C(CH<sub>3</sub>)-CH<sub>2</sub>OH

GuanidinChlorophyta

## Ulvaceae

Enteromorpha intestinalis		737
---------------------------	--	-----

Fungi

## Coprinnaceae

Coprinus atramentarius	Fruchtkörper	652
------------------------	--------------	-----

## Hydnaceae

Hydnum aspratun		445
-----------------	--	-----

## Polyporaceae

Boletus edulis		1247
----------------	--	------

## Ustilaginaceae

Ustilago maydis tulasne		653
-------------------------	--	-----

Angiospermae (Dicotyledoneae)

## Chenopodiaceae

Beta vulgaris var. altissima	Entzuckerungslauge	642
------------------------------	--------------------	-----

## Cucurbitaceae

Sechium edule	Frucht	1264
---------------	--------	------

## Leguminosae

Colutea arborescens	Same	782
Galega officinalis	Samenkeim	737
Glycine max	Bohne	738
Lotus corniculatus	Same	782
Medicago falcata	Same	782
Trifolium pratense	Same	782
Trifolium repens	Same	782
Vicia faba var. minor	Same	782, 893
Vicia sativa	Same	782
Vicia sativa	Samenkeim	737
Vicia sativa	Keimling, etioliert	987
Vicia sativa	Keimpflanze	988
Vicia villosa	Same	782
Vicia sp., Wicke	Keimling, etioliert	990, 993

## Rutaceae

Phellodendron amurense	Rinde	1141
------------------------	-------	------

## Theaceae

Camellia sinensis, jap. Tee	Blatt	1023
-----------------------------	-------	------

Angiospermae (Monocotyledoneae)

## Gramineae

Secale cereale	Korn, reifend	530
Zea mays	Embryo	1248

MethylguanidinBacteriophyta

## Pseudomonadaceae

Vibrio comma (auf Rindfleisch)		108
--------------------------------	--	-----

Angiospermae (Dicotyledoneae)

## Theaceae

Camellia sinensis, jap. Tee	Blatt	1023
-----------------------------	-------	------

GaleginFungi

## Agaricaceae

Agaricus campestris

408

Angiospermae (Dicotyledoneae)

## Leguminosae

Galega officinalis

737, 884

Galega officinalis

Same

60, 296,  
549, 678,  
739, 859,  
971, 1116,  
1117, 1118,  
1122, 1130

Galega officinalis

Keimling

549

Galega officinalis

Blatt

549, 739,  
950, 971,  
1130

Galega officinalis

Blüte

60, 549,  
971, 1130

Galega officinalis

Blütenstiel/Blatt-  
stiel

549

Galega officinalis

Frucht

60

Galega officinalis

Stengel/Wurzel

549, 971

Galega officinalis

Kraut

970

Galega orientalis

885

## Theaceae

Camellia sinensis, jap. Tee

Blatt

1023

4-HydroxygaleginAngiospermae (Dicotyledoneae)

## Leguminosae

Galega officinalis

Same

60, 859,  
971, 1122

Galega officinalis

Kraut

970

Galega officinalis

Stengel/Wurzel

971

Galega officinalis

Blatt

950, 971

Galega officinalis

Blüte

60, 971

Galega officinalis

Frucht

60

Galega orientalis

885

PterogyninAngiospermae (Dicotyledoneae)

## Euphorbiaceae

Alchornea javanensis

Blatt

393

## Leguminosae

Pterogyne nitens

Rinde

200

N,N'-DiisopentenylguanidinAngiospermae (Dicotyledoneae)

## Euphorbiaceae

Alchornea javanensis

392

N,N',N''-TriisopentenylguanidinAngiospermae (Dicotyledoneae)

## Euphorbiaceae

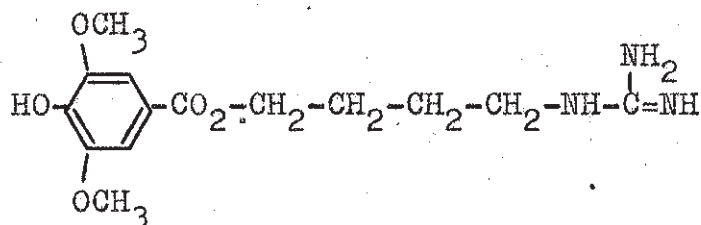
Alchornea javanensis

392

Alchornea javanensis

Rinde

393

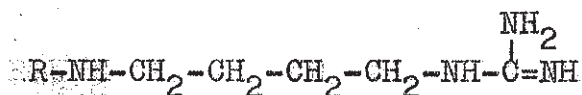
LeonurinAngiospermae (Dicotyledoneae)

## Labiatae

Leonurus sibiricus

Blatt

583



Agmatin

R

H

Sphaerophysin

 $\text{CH}_2-\text{CH}=\text{C}(\text{CH}_3)_2$ AgmatinFungi

## Clavicipitaceae

Claviceps purpurea

Secale cornutum

274

Claviceps purpurea

Sklerotium, ausge-  
reift

568

## Ustilaginaceae

Ustilago mayadis tulasne

653

Angiospermae (Dicotyledoneae)

## Chenopodiaceae

Beta vulgaris

Blatt

1044

## Compositae

Ambrosia artemisifolia

Pollen

420

Lactuca sativa

Blatt

1044

## Cruciferae

Brassica oleracea var. capitata

Blatt

1044

Raphanus sativus

Blatt

1044

## Euphorbiaceae

Ricinus communis

Samea

736

## Leguminosae

Pisum sativum

Blatt

1044

Trifolium pratense

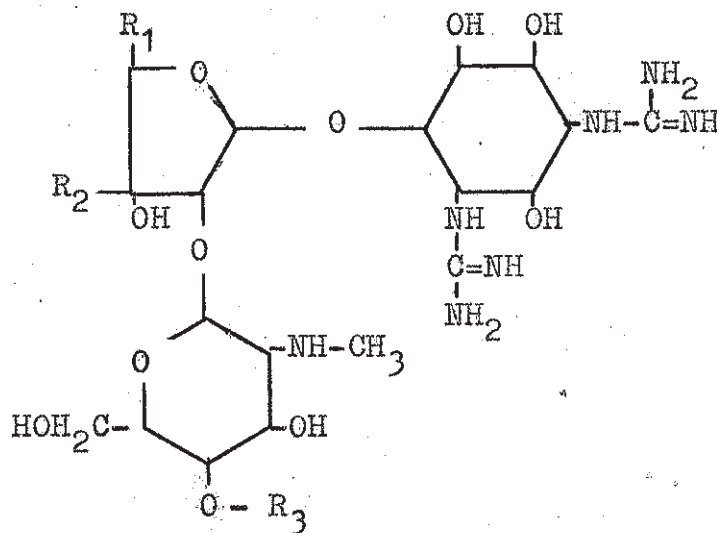
Blatt

1044

Linaceae		
Linum usitatissimum	Blatt	1044
Solanaceae		
Lycopersicon esculentum	Blatt	1044
<u>Angiospermae (Monocotyledoneae)</u>		
Araceae		
Arum italicum	Duftstoff	1040
Hydrosme rivieri	Duftstoff	1040
Sauromatum guttatum	Duftstoff	1040
Gramineae		
Avena sativa	Blatt	1044
Hordeum vulgare, HB 248/17/4; Plumage Archer; Proctor	Blatt	1044
Secale cereale	Blatt	1044
Triticum aestivum	Blatt	1044

SphaerophysinAngiospermae (Dicotyledoneae)

Leguminosae		
Eremosparton flaccidum	Pflanze, g.	897
Eremosparton flaccidum	grüne Teile	707
Smirnovia turkeстана		896
Sphaerophysa salsula		906
Sphaerophysa salsula	Stengel/Blatt/Blüte/ Triebspitze/Frucht- schale/Same, unreif/ Same, reif	886
Sphaerophysa turkeстана	oberird. Teile	895
Swainsona galegifolia		1070



	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>	<u>R<sub>3</sub></u>
Streptomycin	CH <sub>3</sub>	CHO	H
Oxystreptomycin	CH <sub>2</sub> OH	CHO	H
Dihydrostreptomycin	CH <sub>3</sub>	CH <sub>3</sub>	H
Mannosidstreptomycin	CH <sub>3</sub>	CHO	}
Mannosidhydroxystreptomycin	CH <sub>2</sub> OH	CHO	



StreptomycinBacteriophyta

## Streptomycetaceae

Streptomyces (Actinomyces)

griseus, D-1; 18-16

951

Streptomyces griseus

1198

Streptomyces lavendulae

160

Streptomyces mashuensis

Myzel

945

OxystreptomycinBacteriophyta

## Streptomycetaceae

Streptomyces griseo-carneus

73, 1084

Streptomyces nov. sp.

368

Streptomyces reticuli, 5658

762

DihydrostreptomycinBacteriophyta

## Streptomycetaceae

Streptomyces humidus

504

MannosidostreptomycinBacteriophyta

## Actinomycetaceae

Actinomyces globisporus

streptomycini, LS-1; 178-W

763

## Streptomycetaceae

Streptomyces griseus

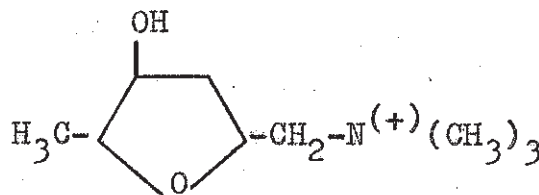
307

MannosidohydroxystreptomycinBacteriophyta

## Streptomycetaceae

Streptomyces sp., 86

32

Alicyclische AmineMuscarin

(Es werden verschiedene Konfigurationen unterschieden.)

Fungi

## Amanitaceae

Amanita muscaria

52, 277,  
280, 281,  
389, 390,  
538, 558,  
560 - 562,  
769, 920,  
954, 963,  
965, 1160,  
1270  
280

Amanita muscaria

Huthaut, rot

## Cortinariaceae

Inocybe agglutinata

126

Inocybe agglutinata

Karpophor, g.

898

Inocybe albodisca

Pilz, ganz, g.

670

Inocybe asterospora

448

Inocybe boltonii

Karpophor, g.

898

Inocybe cinnamomea

126, 164

Inocybe cinnamomea

Pilz, ganz, g.

670

Inocybe cinnamomea

Karpophor, g.

898

Inocybe cookei

448

Inocybe decipientoides

Pilz, ganz, g.

670

Inocybe fastigiata

164, 280,

281, 1231

Inocybe gausapata

Pilz, ganz, g.

670

Inocybe geophylla

164

Inocybe geophylla

Karpophor, g.

898

Inocybe geophylla var. geophylla

126

Inocybe geophylla var. geophylla

Pilz, ganz, g.

670

Inocybe griseolilacina

126

Inocybe griseolilacina

Pilz, ganz, g.

670

Inocybe griseolilacina

Karpophor, g.

898

Inocybe hirtella

1231

Inocybe kauffmanii

Pilz, ganz, g.

670

Inocybe kauffmanii

Karpophor, g.

898

Inocybe lacera

126, 164

Inocybe lacera

Pilz, ganz, g.

670

Inocybe lacera

Karpophor, g.

898

Inocybe lanuginosa

Karpophor, g.

898

Inocybe lateraria

283, 701

Inocybe lilacina

126, 164,

669

Inocybe lilacina

Pilz, ganz, g.

670

Inocybe lilacina

Karpophor, g.

898

Inocybe mixtilis

126

Inocybe mixtilis

Pilz, ganz, g.

670

Inocybe mixtilis

Karpophor, g.

898

Inocybe napipes

126, 164,

669, 1231

Inocybe napipes

Pilz, ganz, g.

670

Inocybe napipes

Karpophor, g.

898, 1090

Inocybe nigrescens

669

Inocybe nigrescens

Pilz, ganz, g.

670

Inocybe oblectabilis

Pilz, ganz, g.

670

Inocybe obscuroides

Pilz, ganz, g.

670

Inocybe obscuroides

Karpophor, g.

898

Inocybe olympiana

Pilz, ganz, g.

670

Inocybe olympiana

Karpophor, g.

898

Inocybe pallidipes

126

Inocybe pallidipes

Karpophor, g.

898

Inocybe patouillardi		278, 280, 281, 650, 1231
Inocybe picrosma	Pilz, ganz, g.	670
Inocybe praetervisa	Pilz, ganz, g.	670
Inocybe praetervisa	Karpophor, g.	898
Inocybe pudica		126, 164
Inocybe pudica	Pilz, ganz, g.	670
Inocybe pudica	Karpophor, g.	898
Inocybe rimosa		281
Inocybe sororia		126, 164, 669
Inocybe sororia	Pilz, ganz, g.	670
Inocybe sororia	Karpophor, g.	898
Inocybe subbrunnea		164
Inocybe substricta		126
Inocybe substricta	Pilz, ganz, g.	670
Inocybe terrifera		126
Inocybe terrifera	Pilz, ganz, g.	670
Inocybe terrifera	Karpophor, g.	898
Inocybe umbrina		126, 280, 448
Inocybe xanthomelas	Pilz, ganz, g.	670
Inocybe friesii + I. maculata + I. tabacina + I. tarda		164
Inocybe sp., 1187; 1540; 1774; 1838; 2147; 2907; 3399; 3691; 3983; 4291, (MHUW)		126
Inocybe sp., 3398 (MHUW)		164
Inocybe sp., 1540; 1774; 1790; 1838; 2147; 3399; 3832; 4292; (MHUW)	Pilz, ganz, g.	670
Inocybe sp., 1187; 1540; 2147; 2149; 3983; 4790; 4893; 4895, (MHUW)	Karpophor, g.	898
Inocybe sp., 3761 (MHUW)		126, 669
<b>Tricholomataceae</b>		
Clitocybe cerussata var. difformis sensu, 55728 (DAOM)	g.	320
Clitocybe dealbata	g.	320
Clitocybe dealbata	Karpophor	436
Clitocybe dealbata, 33896 (DAOM)	g.	320
Clitocybe illudens, 10018; 24168, (DAOM)	g.	320
Clitocybe rivulosa		1101, 1232 - 1235
Clitocybe rivulosa	Myzel	1100
Clitocybe rivulosa, 64791 (DAOM)		320
Clitocybe sp. (verschiedene Arten)		1232 - 1235
<b>Angiospermae (Dicotyledoneae)</b>		
<b>Moraceae</b>		
Cannabis indica	Blüte/Frucht	676

(+)-epi-MuscarinFungi**Cortinariaceae**

Inocybe geophylla

100

epi-MuscarinFungi

## Amanitaceae

Amanita muscaria 281

## Cortinariaceae

Inocybe cinnamomea 164  
 Inocybe fastigiata 164  
 Inocybe geophylla 164  
 Inocybe lacera 164  
 Inocybe lilacina 164  
 Inocybe napipes 164  
 Inocybe pudica 164  
 Inocybe rimosa 281  
 Inocybe sororia 164  
 Inocybe subbrunnea 164  
 Inocybe friesii + I. maculata  
 + I. tabacina + I. tarda 164  
 Inocybe sp., 3398 (MHUW) 164

allo-MuscarinFungi

## Amanitaceae

Amanita muscaria 281

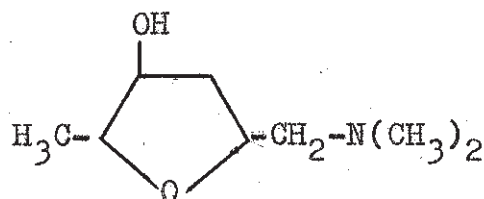
## Cortinariaceae

Inocybe fastigiata 164, 281  
 Inocybe lilacina 164  
 Inocybe patouillardii 281  
 Inocybe pudica 164  
 Inocybe rimosa 281  
 Inocybe subbrunnea 164  
 Inocybe friesii + I. maculata  
 + I. tabacina + I. tarda 164  
 Inocybe sp., 3398 (MHUW) 164

epiallo-MuscarinFungi

## Cortinariaceae

Inocybe patouillardii 281  
 Inocybe rimosa 281  
 Inocybe friesii + I. maculata  
 + I. tabacina + I. tarda 164  
 Inocybe sp., 3398 (MHUW) 164

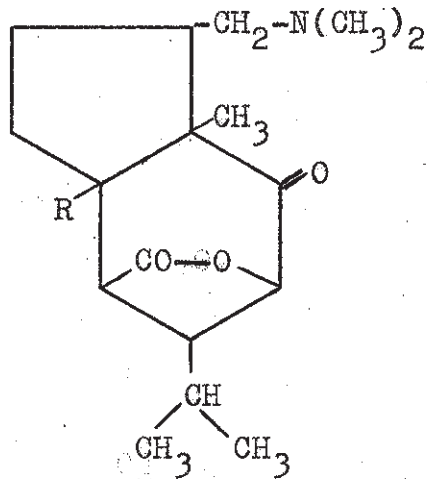
Normuscarin

(Es werden verschiedene Konfigurationen unterschieden.)

Normuscarin/epi-Normuscarin/allo-NormuscarinFungi

Cortinariaceae  
Inocybe geophylla

100



	<u>R</u>
Nobilin bzw. Nobilonin	H
6-Hydroxynobilin	OH

Nobilin bzw. NobiloninAngiospermae (Monocotyledoneae)

## Orchidaceae

Dendrobium hildebrandii Pflanze

Dendrobium nobile

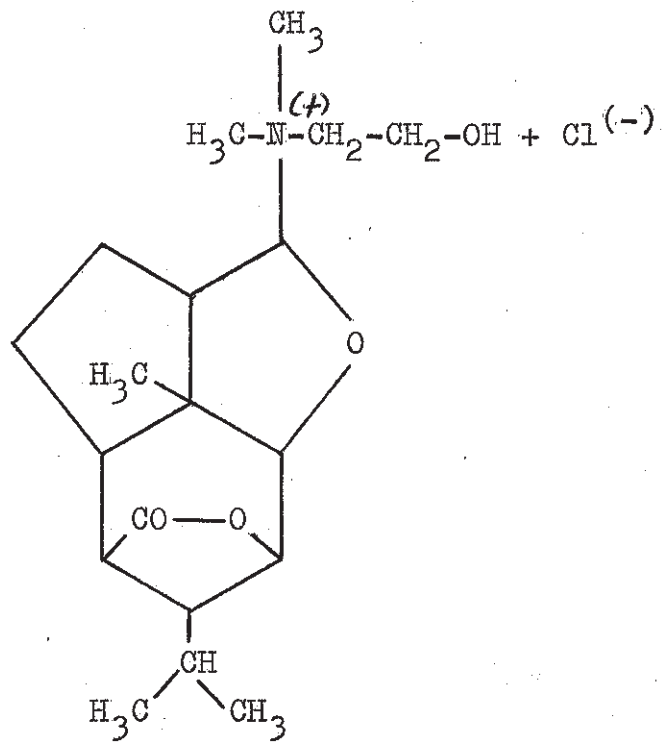
264  
791, 794,  
1257

6-HydroxynobilinAngiospermae (Monocotyledoneae)

## Orchidaceae

Dendrobium hildebrandii Pflanze

264



Dendrowardin

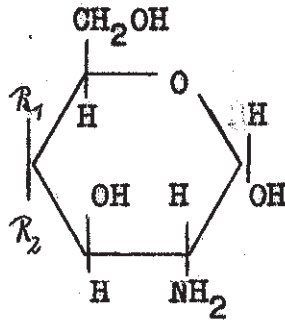
Angiospermae (Monocotyledoneae)

Orchidaceae

Dendrobium wardianum

Pflanze

90



	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>
Glucosamin	H	OH
Galactosamin	OH	H

### Glucosamin

#### Bacteriophyta

##### Bacillaceae

*Clostridium taeniosporum*

1260

#### Fungi

##### Agaricaceae

*Agaricus campestris*

22

#### Angiospermae (Dicotyledoneae)

##### Malvaceae

*Callirhoe digitata*

Knospe

815

*Callirhoe involucrata*

Knospe

815

*Cienfuegosia heterophylla*

Knospe

815

*Gossypium hirsutum*

Knospe

815

*Hibiscus syriacus*

Knospe

815

*Thespesia populnea*

Knospe

815

##### Umbelliferae

*Oenanthe stolonifera*

Wurzel

944

### Galactosamin

#### Fungi

##### Agariaceae

*Agaricus campestris*

22

#### Angiospermae (Dicotyledoneae)

##### Umbelliferae

*Oenanthe stolonifera*

Wurzel

944

### Glucosamin und/oder Galactosamin

#### Fungi

##### Agaricaceae

*Agaricus subrutilescens*

Fruchtkörper

404

##### Clavicipitaceae

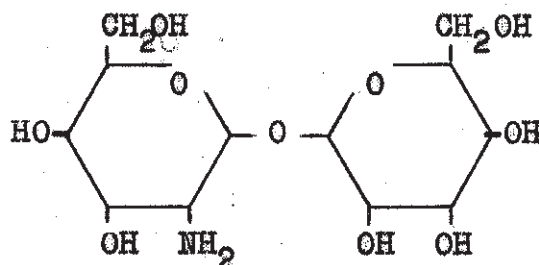
*Cordyceps militaris*

Fruchtkörper

404



<b>Hygrophoraceae</b>		
<i>Cantharellus floccosus</i>	Fruchtkörper	404
<b>Polyporaceae</b>		
<i>Boletus rubellus</i>	Fruchtkörper	404
<i>Boletus satanas</i>	Fruchtkörper	404
<i>Coriolus versicolor</i>	Fruchtkörper	404
<i>Pulveroboletus cramesinus</i>	Fruchtkörper	404
<i>Xerocomus subtomentosus</i>	Fruchtkörper	404
<b>Tricholomataceae</b>		
<i>Armillariella tabescens</i>	Fruchtkörper	404
<i>Clitocybe catinus</i>	Fruchtkörper	404
<i>Gollybia erythropus</i>	Fruchtkörper	404
<i>Marasmius androsaceus</i>	Fruchtkörper	404

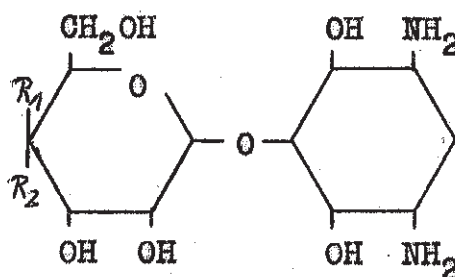


Trehalosamin

Bacteriophyta

Streptomycetaceae  
*Streptomyces* sp.

31



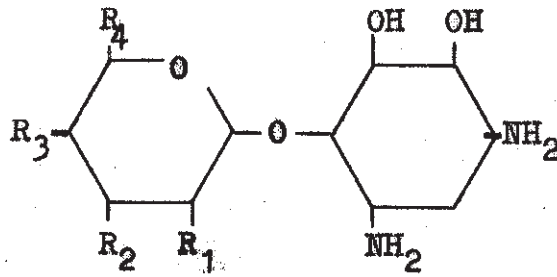
	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>
Antibiotikum SS-56-A	H	OH
Antibiotikum SS-56-B	OH	H

Antibiotikum SS-56-A/Antibiotikum SS-56-B

Bacteriophyta

Streptomycetaceae  
*Streptomyces eurocidicus*

446



	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	R <sub>4</sub>
Antibiotikum NK-1003	OH	OH	OH	CH <sub>2</sub> NH <sub>2</sub>
Antibiotikum NK-1012-2	OH	NH <sub>2</sub>	OH	CH <sub>2</sub> OH
Lividamin	NH <sub>2</sub>	H	OH	CH <sub>2</sub> OH
Nebramin	NH <sub>2</sub>	H	OH	CH <sub>2</sub> NH <sub>2</sub>
Paromamin	NH <sub>2</sub>	OH	OH	CH <sub>2</sub> OH
Neomycin-A	NH <sub>2</sub>	OH	OH	CH <sub>2</sub> NH <sub>2</sub>

Antibiotikum NK-1003/Antibiotikum NK-1012-2

Bacteriophyta

Streptomycetaceae

Streptomyces kanamyceticus

743

Lividamin

Bacteriophyta

Streptomycetaceae

Streptomyces tenebrarius

784

Nebramin

Bacteriophyta

Streptomycetaceae

Streptomyces hofunensis

559

Paromamin

Bacteriophyta

Streptomycetaceae

Micromonospora purpurea

891

Streptomyces kanamyceticus

891

Streptomyces kanamyceticus, Mutante

743

Streptomyces tenebrarius

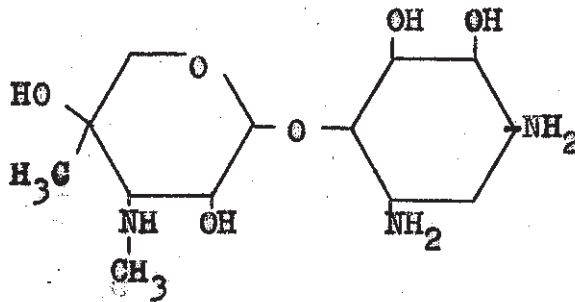
891

Neomycin-ABacteriophyta

## Streptomycetaceae

Streptomyces fradiae  
 Streptomyces kanamyceticus  
 Streptomyces tenebrarius

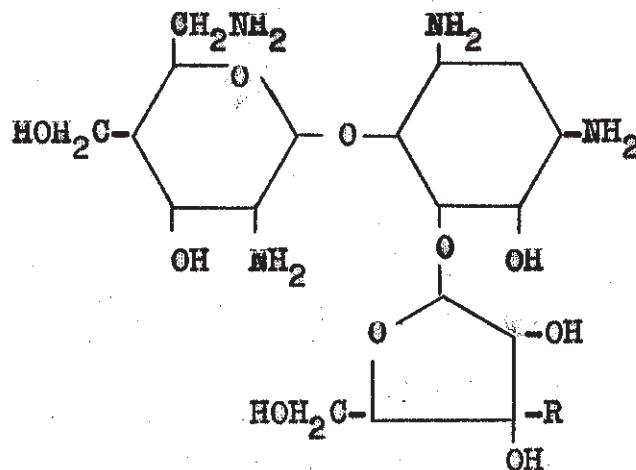
818, 891  
 891  
 891

GaraminBacteriophyta

## Streptomycetaceae

Micromonospora inyoensis  
 Micromonospora purpurea

875  
 875



Antibiotikum SF-733 (Ribostamycin)  
 Xylostacin

$\frac{R}{H}$   
 OH

Antibiotikum SF-733Bacteriophyta

## Streptomycetaceae

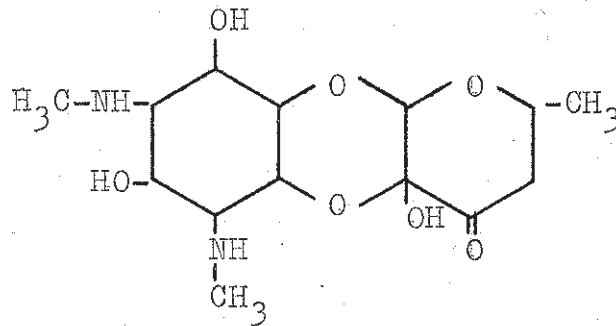
Streptomyces ribosidificus

16

XylostacinBacteriophyta

Bacillaceae

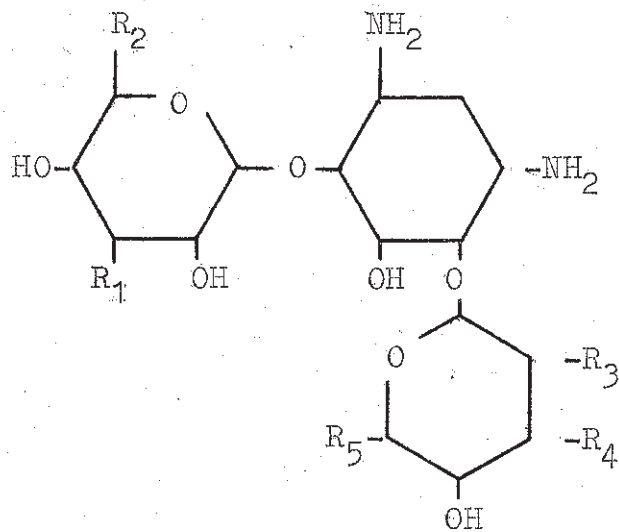
Bacillus sp., Y-399

401, 430  
1161SpectinomycinBacteriophyta

Streptomycetaceae

Streptomyces spectabilis

75, 1236



	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	R <sub>4</sub>	R <sub>5</sub>
Gentamycin-A <sub>2</sub>	OH	H	NH <sub>2</sub>	OH	CH <sub>2</sub> OH
Gentamycin-A <sub>3</sub>	NHCH <sub>3</sub>	H	OH	OH	CH <sub>2</sub> NH <sub>2</sub>
Gentamycin-A <sub>1</sub> (A)	NHCH <sub>3</sub>	H	NH <sub>2</sub>	OH	CH <sub>2</sub> OH
Antibiotikum NK-1001	OH	CH <sub>2</sub> OH	OH	OH	CH <sub>2</sub> NH <sub>2</sub>
Antibiotikum NK-1012-1	OH	CH <sub>2</sub> OH	NH <sub>2</sub>	OH	CH <sub>2</sub> NH <sub>2</sub>
Kanamycin-A	NH <sub>2</sub>	CH <sub>2</sub> OH	OH	OH	CH <sub>2</sub> NH <sub>2</sub>
Kanamycin-C	NH <sub>2</sub>	CH <sub>2</sub> OH	NH <sub>2</sub>	OH	CH <sub>2</sub> OH
Tobramycin	NH <sub>2</sub>	CH <sub>2</sub> OH	NH <sub>2</sub>	H	CH <sub>2</sub> NH <sub>2</sub>
Kanamycin-B	NH <sub>2</sub>	CH <sub>2</sub> OH	NH <sub>2</sub>	OH	CH <sub>2</sub> NH <sub>2</sub>

Gentamycin-A<sub>2</sub>Bacteriophyta

## Streptomycetaceae

Micromonospora purpurea

748

Gentamycin-A<sub>3</sub>Bacteriophyta

## Streptomycetaceae

Micromonospora purpurea

749

Gentamycin-A<sub>1</sub>Bacteriophyta

## Streptomycetaceae

Micromonospora purpurea

665, 749

Antibiotikum NK-1001/Antibiotikum NK-1012-1Bacteriophyta

## Streptomycetaceae

Streptomyces kanamyceticus

743

Kanamycin-ABacteriophyta

## Streptomycetaceae

Streptomyces kanamyceticus

1179, 1180

Kanamycin-CBacteriophyta

## Streptomycetaceae

Streptomyces kanamyceticus

788, 1180

TobramycinBacteriophyta

## Streptomycetaceae

Streptomyces tenebrarius

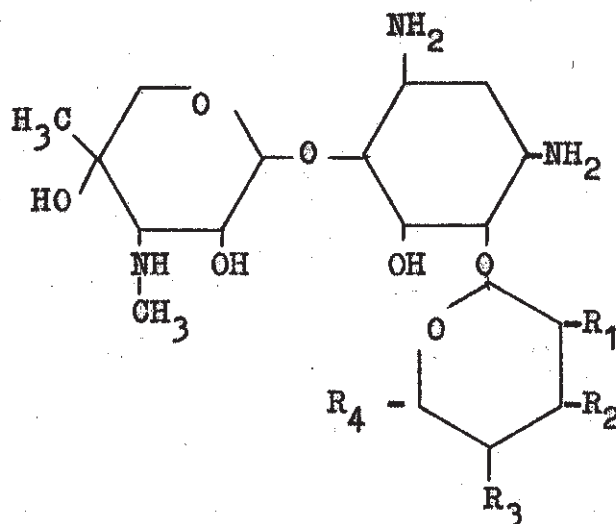
559

Kanamycin-BBacteriophyta

## Streptomycetaceae

Streptomyces kanamyceticus

1180



	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	R <sub>4</sub>
Gentamycin-B	OH	OH	OH	CH <sub>2</sub> NH <sub>2</sub>
Gentamycin-B <sub>1</sub>	OH	OH	OH	CH(CH <sub>3</sub> )NH <sub>2</sub>
Gentamycin-C <sub>1a</sub>	NH <sub>2</sub>	H	H	CH <sub>2</sub> NH <sub>2</sub>
Gentamycin-C <sub>2</sub>	NH <sub>2</sub>	H	H	CH(CH <sub>3</sub> )NH <sub>2</sub>
Gentamycin-C <sub>2b</sub>	NH <sub>2</sub>	H	H	CH <sub>2</sub> NHCH <sub>3</sub>
Gentamycin-C <sub>1</sub>	NH <sub>2</sub>	H	H	CH(CH <sub>3</sub> )NHCH <sub>3</sub>
Gentamycin-X <sub>2</sub>	NH <sub>2</sub>	OH	OH	CH <sub>2</sub> OH
Antibiotikum G-148	NH <sub>2</sub>	OH	OH	CH(CH <sub>3</sub> )OH
Antibiotikum J1-20-A	NH <sub>2</sub>	OH	OH	CH <sub>2</sub> NH <sub>2</sub>
Antibiotikum J1-20-B	NH <sub>2</sub>	OH	OH	CH(CH <sub>3</sub> )NH <sub>2</sub>

Gentamycin-C<sub>1</sub>/Gentamycin-C<sub>1a</sub>/Gentamycin-C<sub>2</sub>

Bacteriophyta

Streptomycetaceae

Micromonospora purpurea

489

Gentamycin-B

Bacteriophyta

Streptomycetaceae

Micromonospora purpurea

1211

Gentamycin-B<sub>1</sub>/Gentamycin-X<sub>2</sub>

Bacteriophyta

Streptomycetaceae

Micromonospora purpurea

222

Gentamycin-C<sub>2b</sub>Bacteriophyta

## Streptomycetaceae

Micromonospora purpurea	223, 258
Micromonospora sp., MK 62	223, 258
Micromonospora sp., MK 65	223, 258

Antibiotikum G-148Bacteriophyta

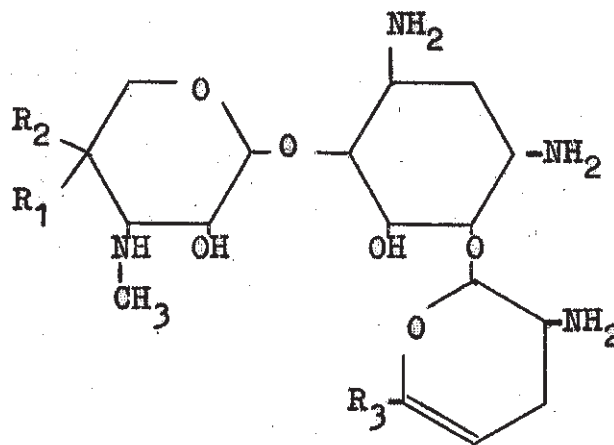
## Streptomycetaceae

Micromonospora rhodorangea	225
----------------------------	-----

Antibiotikum J1-20-A/Antibiotikum J1-20-BBacteriophyta

## Streptomycetaceae

Micromonospora purpurea, J1-20	444
--------------------------------	-----



	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>	<u>R<sub>3</sub></u>
Antibiotikum 66-40-B	OH	H	CH <sub>2</sub> NH <sub>2</sub>
Antibiotikum 66-40-D	H	OH	CH <sub>2</sub> NH <sub>2</sub>
Sisomycin	CH <sub>3</sub>	OH	CH <sub>2</sub> NH <sub>2</sub>
Verdamycin	CH <sub>3</sub>	OH	CH(CH <sub>3</sub> )NH <sub>2</sub>

Antibiotikum 66-40-B/Antibiotikum 66-40-DBacteriophyta

## Streptomycetaceae

Micromonospora inyoensis	230
--------------------------	-----

SisomycinBacteriophyta

## Streptomycetaceae

Micromonospora inyoensis	875
Micromonospora inyoensis	1213

Fermentationsfl.

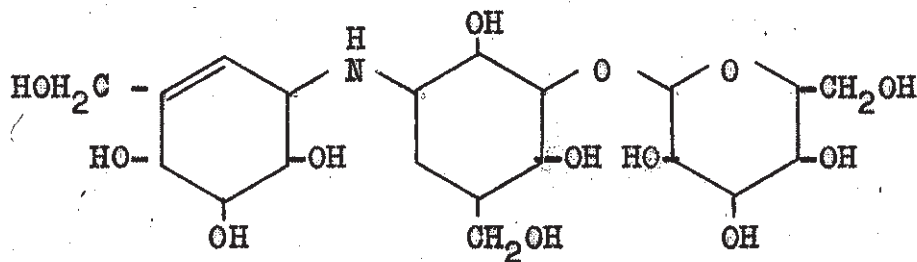
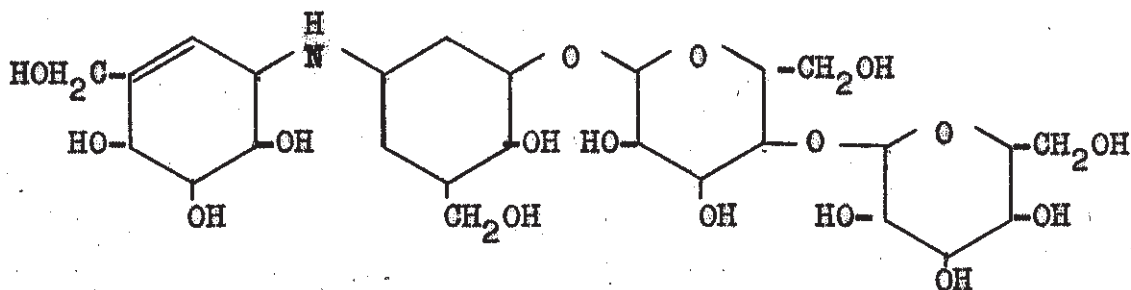


VerdamycinBacteriophyta

## Streptomycetaceae

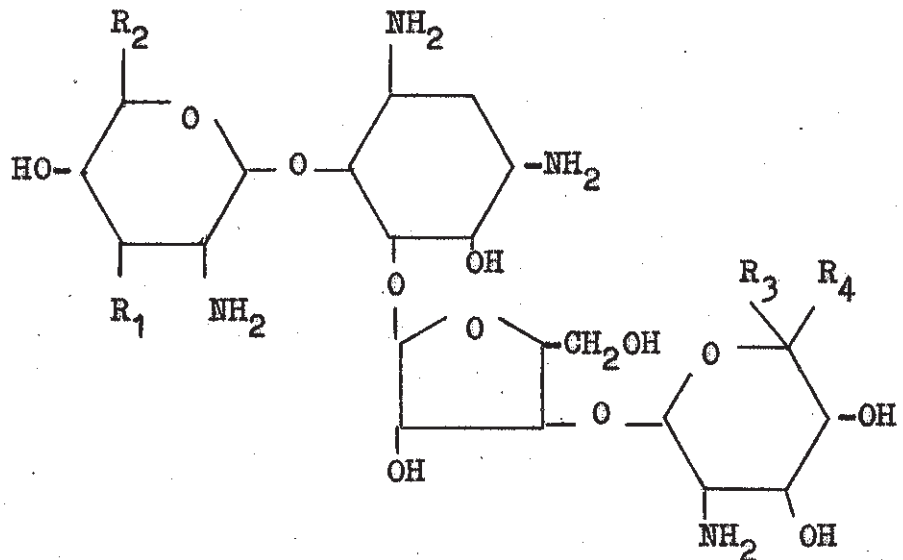
*Micromonospora grisea*

224, 1215

Validamycin-AValidamycin-BValidamycin-A/Validamycin-BBacteriophyta

## Streptomycetaceae

*Streptomyces hygrosopicus* var.  
*limoneus*429, 451,  
452



	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	R <sub>4</sub>
Lividomycin-B	H	CH <sub>2</sub> OH	CH <sub>2</sub> NH <sub>2</sub>	H
Paromomycin-I	OH	CH <sub>2</sub> OH	CH <sub>2</sub> NH <sub>2</sub>	H
Paromomycin-II	OH	CH <sub>2</sub> OH	H	CH <sub>2</sub> NH <sub>2</sub>
Neomycin-B	OH	CH <sub>2</sub> NH <sub>2</sub>	CH <sub>2</sub> NH <sub>2</sub>	H

Lividomycin-B

Bacteriophyta

Streptomycetaceae

Streptomyces lividus

726, 727

Paromomycin-I

Bacteriophyta

Streptomycetaceae

Streptomyces lividus

726

Streptomyces paucisporogenes

Kulturmilieu

377

Streptomyces pulveraceus

400

Streptomyces sp. forma  
paromomycinus

400

Paromomycin-II

Bacteriophyta

Streptomycetaceae

Streptomyces pulveraceus

892

Streptomyces sp. forma  
paromomycinus

892

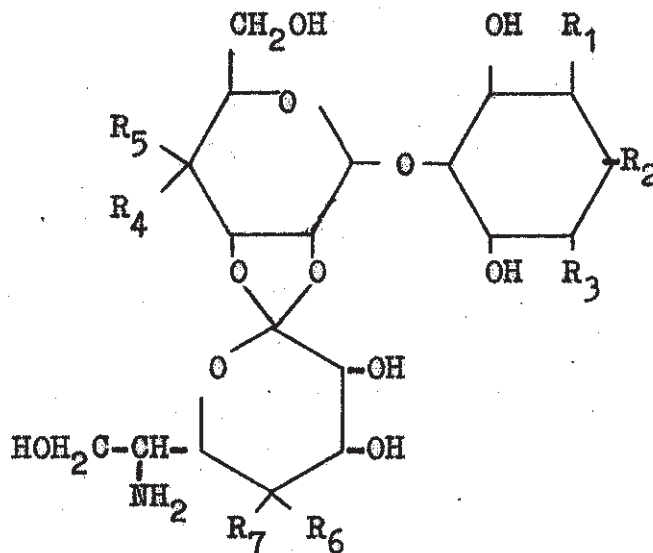
Neomycin-B

Bacteriophyta

Streptomycetaceae

Streptomyces fradiae

873



	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	R <sub>4</sub>	R <sub>5</sub>	R <sub>6</sub>	R <sub>7</sub>
Antibiotikum A-396-I	NH <sub>2</sub>	H	NH <sub>2</sub>	H	OH	OH	H
Destomycin-A	NH <sub>2</sub>	H	NHCH <sub>3</sub>	H	OH	OH	H
Antibiotikum SS-56-G	NH <sub>2</sub>	OH	NH <sub>2</sub>	H	OH	OH	H
Hygromycin-B	NHCH <sub>3</sub>	H	NH <sub>2</sub>	H	OH	OH	H
Destomycin-C	NHCH <sub>3</sub>	H	NHCH <sub>3</sub>	H	OH	OH	H
Destomycin-B	NHCH <sub>3</sub>	H	NHCH <sub>3</sub>	OH	H	H	OH

Antibiotikum A-396-I

Bacteriophyta

Streptomycetaceae

Streptomyces eurocidicus

446

Streptoverticillium eurocidicus

1027

Destomycin-A/Destomycin-B

Bacteriophyta

Streptomycetaceae

Streptomyces rimofaciens

565

Antibiotikum SS-56-G

Bacteriophyta

Streptomycetaceae

Streptomyces eurocidicus

446

Hygromycin-B

Bacteriophyta

Streptomycetaceae

Streptomyces hygrosopicus

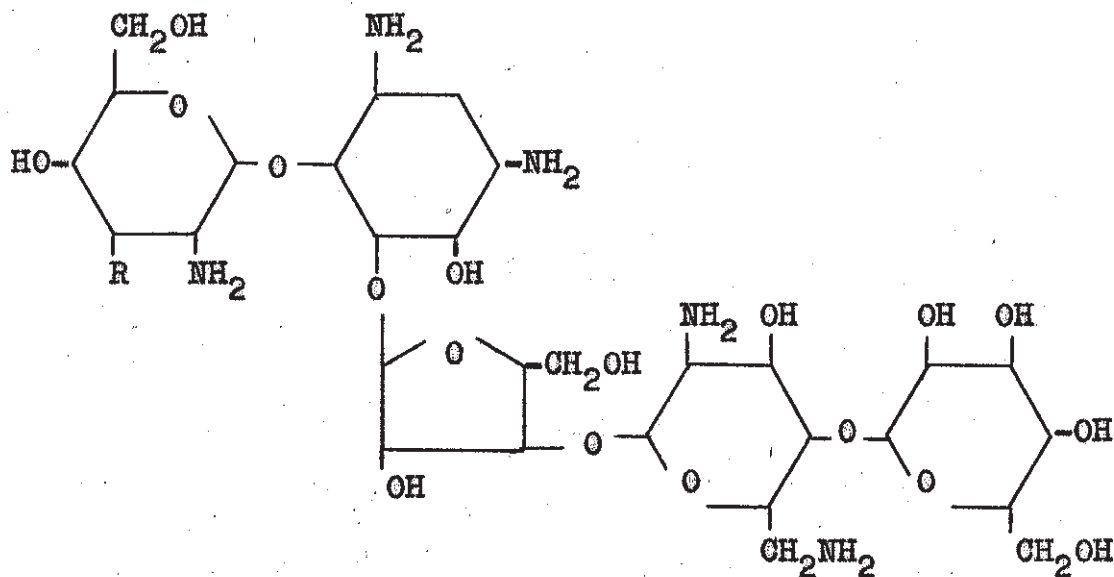
672

Destomycin-CBacteriophyta

## Streptomycetaceae

Streptomyces rimofaciens

1024



Lividomycin-A

$$\frac{R}{H}$$

Mannosylparomomycin

OH

Lividomycin-ABacteriophyta

## Streptomycetaceae

Streptomyces lividus

726

MannosylparomomycinBacteriophyta

## Streptomycetaceae

Streptomyces griseus, MIT-A5

Streptomyces lividus

752  
726, 727Gentamycin-KomplexBacteriophyta

## Streptomycetaceae

Micromonospora echinospora

903

Micromonospora purpurea

903

Micromonospora sp., 2953; 2985

(NRRL) (= M. echinospora bzw.

M. purpurea [412] )

1212

Komplex-Auftrennung in Gentamycin-G<sub>1</sub>, -G<sub>1a</sub>, -G<sub>2</sub>

489

Neomycin-KomplexBacteriophyta

## Streptomycetaceae

Streptomyces fradie

1199

Paromomycin-KomplexBacteriophyta

## Streptomycetaceae

Streptomyces sp., P-D 04998

(= 2455 NRRL )

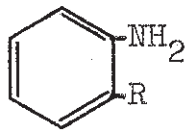
195

Streptomyces rimosus var.

paromomycinus

Kulturfiltrat

814

Aromatische Amine

2-Aminophenol

R  
OH

2-Aminoacetophenon

CO-CH<sub>3</sub>2-AminophenolFungi

Aspergillaceae

Penicillium notatum, Mutante,  
die Xanthocillin bildet

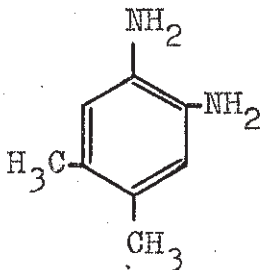
826

2-AminoacetophenonBacteriophyta

Pseudomonadaceae

Pseudomonas aeruginosa

673

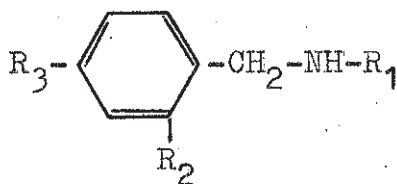
1,2-Dimethyl-4,5-diaminobenzolFungi

Aspergillaceae

Aspergillus nidulans, Heteroka-  
ryont von 2 nichtallelen ribo-  
flavinfreien Mutanten (y ribo<sub>3</sub>;  
w ribo<sub>6</sub>)

Myzel

914



	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>	<u>R<sub>3</sub></u>
Benzylamin	H	H	H
o-Hydroxybenzylamin	H	OH	H
p-Hydroxybenzylamin	H	H	OH
N-Methylbenzylamin	CH <sub>3</sub>	H	H

### Benzylamin

#### Angiospermae (Dicotyledoneae)

Cruciferae			
Sinapis alba	Infloreszenz		397
Moringaceae			
Moringa oleifera	Rinde		170
Moringa pterygosperma	Rinde		339

### o-Hydroxybenzylamin

#### Angiospermae (Dicotyledoneae)

Resedaceae			
Reseda odorata	Blüte		1052

### p-Hydroxybenzylamin

#### Angiospermae (Dicotyledoneae)

Cruciferae			
Sinapis alba	Same		612

#### Angiospermae (Monocotyledoneae)

Gramineae			
Hordeum sativum, Golden Promise	Same		1039

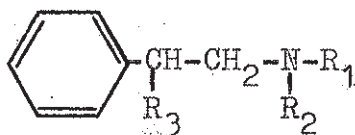
### N-Methylbenzylamin

#### Gymnospermae

Ephedraceae			
Ephedra sp.	Ma-Huang <sup>x)</sup>		179

x) siehe S. 185





	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>	<u>R<sub>3</sub></u>
β-Phenylethylamin	H	H	H
N-Methyl-β-phenylethylamin	CH <sub>3</sub>	H	H
N,N-Dimethyl-β-phenylethylamin	CH <sub>3</sub>	CH <sub>3</sub>	H
Halostachin	CH <sub>3</sub>	H	OH

β-Phenylethylamin

Bacteriophyta

Bacillaceae

Bacillus sphaericus, 2120	61
Clostridium bifermentans, 409 A; 462; 1628; 1668; 1718B; 1720 A; 4483; 4511; 4665; 5064 (NCDC)	125
Clostridium bifermentans, 2036 (VPI)	124
Clostridium botulinum, C; D	124
Clostridium butyricum	124
Clostridium innocuum, 2020 (VPI)	124
Clostridium limosum, 0658; 1748 B; 1928; 1950 (VPI)	124
Clostridium novyi, A; B; 1602 (VPI)	124
Clostridium sordellii, 383; 1717; 1718 A; 1720 C; 1766; 4798; 5257; 5297; 5298 (NCDC)	125
Clostridium tetani	124

Corynebacteriaceae

Corynebacterium poinsettiae, L 17a	61
------------------------------------	----

Enterobacteriaceae

Escherichia coli, A 17	61
Proteus mirabilis, 40-512-1 (CDC)	123
Proteus vulgaris, A 22	61

Lactobacteriaceae

Streptococcus faecalis, 1; 3; A32	61
Streptococcus liquefaciens, 7	61

Micrococcaceae

Micrococcus aurantiacus, 6	61
Staphylococcus aureus, SG 511	61

Mycobacteriaceae

Mycobacterium phlei, A 30	61
---------------------------	----

Phaeophyta

Desmarestiaceae

Desmarestia aculeata	1066
Desmarestia viridis	1066

Rhodophyta

Ceramiaceae		
<i>Ceramium rubrum</i>		1066
Delesseriaceae		
<i>Delesseria sanguinea</i>		1066
Duomontiaceae		
<i>Duomontia incrassata</i>		1066
Rhizophyllidaceae		
<i>Polyides rotundus</i>		1066
Rhodomelaceae		
<i>Polysiphonia urceolata</i>		1066
Rhodophyllidaceae		
<i>Cystoclonium purpureum</i>		1066

Fungi

Clavicipitaceae		
<i>Claviceps purpurea</i>		569, 1066
<i>Claviceps purpurea</i>	<i>Secale cornutum</i>	1069
<i>Claviceps purpurea</i>	<i>Sklerotium</i>	1064
<i>Claviceps purpurea</i> , Wildform; Zuchtform	<i>Sklerotium</i>	570
Cortinariaceae		
<i>Inocybe patouillardii</i>		650
<i>Phlegmacium melliroleus</i>	<i>Fruchtkörper</i>	1064
Coprinaceae		
<i>Coprinus atramentarius</i>	<i>Fruchtkörper</i>	652
<i>Coprinus micaceus</i>		647
Phallaceae		
<i>Phallus impudicus</i>	<i>Fruchtkörper, jung</i>	651
Polyporaceae		
<i>Boletus edulis</i>		506
<i>Boletus luteus</i>		506
<i>Polyporus sulphureus</i>		643, 645, 648, 649, 704
Strophariaceae		
<i>Namatoloma fasciculare</i>	<i>Fruchtkörper</i>	1064
<i>Pholiota mutabilis</i>	<i>Fruchtkörper</i>	1064
Tricholomataceae		
<i>Marasmius peronatus</i>	<i>Fruchtkörper</i>	1064
<u>Angiospermae (Dicotyledoneae)</u>		
Asclepiadaceae		
<i>Cynanchum vincetoxicum</i>	<i>Blüte</i>	1063
Caprifoliaceae		
<i>Lonicera maackii</i>	<i>Blüte</i>	397
<i>Viburnum lantana</i>	<i>Blüte</i>	397
Cornaceae		
<i>Cornus alba</i> ssp. <i>tatarica</i>	<i>Blüte</i>	1063
<i>Cornus sanguinea</i>	<i>Blüte</i>	1063
Leguminosae		
<i>Acacia accola</i>	<i>Stamm/Blatt/Blüte</i>	1226
<i>Acacia acinacea</i>		700, 1224
<i>Acacia buxifolia</i>		700, 1224
<i>Acacia cardiophylla</i>	<i>Stamm/Blatt/Blüte</i>	1226

<i>Acacia cultriformis</i>		1223	
<i>Acacia floribunda</i>		1223	
<i>Acacia hakeoides</i>		700,	1223
<i>Acacia harpophylla</i>	Blatt/Zweig	300	
<i>Acacia kettlewellaiae</i>	Stamm/Blatt	1226	
<i>Acacia linifolia</i>		700,	1223
<i>Acacia longifolia</i>		1223,	1224
<i>Acacia longifolia</i>	Blütenähre	1226	
<i>Acacia lumata</i>		1223	
<i>Acacia podalyriaefolia</i>		1223	
<i>Acacia podalyriaefolia</i>	Same, unreif/Schote, unreif	1226	
<i>Acacia praetervisiva</i>	Stamm/Blatt	1226	
<i>Acacia pravissima</i>		1223	
<i>Acacia pravissima</i>	Blattknospe	1225	
<i>Acacia prominens</i>		1224	
<i>Acacia prominens</i>	Blattknospe	1225	
<i>Acacia pruinosa</i>		700,	1223
<i>Acacia spectabilis</i>	Stamm/Blatt	1226	
<i>Acacia suaveolens</i>		1223,	1224
<i>Acacia suaveolens</i>	Blattknospe	1225	
<i>Acacia verticillata</i>		700,	1224
<i>Acacia</i> spp. (Vorkommen: Neuseeland)		1223	
<i>Albizia adianthifolia</i>	Wurzel	857	
<i>Alhagi pseudalhagi</i>	Stengel/Wurzel	336	
<i>Desmodium cephalotes</i>	Wurzel, stengel- bürtig	333	
<i>Desmodium gangeticum</i>	Wurzel, g.	325	
<i>Desmodium gangeticum</i>	Wurzel	327	
<i>Desmodium gangeticum</i>	Stiel + Blatt	326	
<i>Desmodium gyrans</i>	Blatt	332	
<i>Desmodium triflorum</i>	Wurzel/Blatt	337,	338
<i>Desmodium triflorum</i>	Stengel	338	
<i>Prosopis alba</i>		357	
<i>Prosopis nigra</i>	Blatt	730	
Loranthaceae			
<i>Viscum album</i>		626	
Malvaceae			
<i>Sida cordifolia</i>	Wurzel	328	
Rosaceae			
<i>Crataegus arnoldiana</i>	Blüte	397	
<i>Crataegus curvisepala</i>	Blüte	1063	
<i>Crataegus douglasii</i>	Blüte, voll geöffnet	1063	
<i>Crataegus fecunda</i>	Blüte	1063	
<i>Crataegus insperata</i>	Blüte	1063	
<i>Crataegus jozana</i>	Blüte	1063	
<i>Crataegus mollis</i>	Blüte	397	
<i>Crataegus monogyna</i>	Blüte	397,	1063
<i>Crataegus oxyacantha</i>	Flores Crataegi/ Fructus Crataegi	1063	
<i>Crataegus spinulosa</i>	Blüte	1063	
<i>Malus</i> sp.	Blüte	397	
<i>Prunus padus</i>	Blüte	397	
<i>Pyrus communis</i>	Blüte, voll geöffnet/ Knospe, grün	1063	
<i>Sorbaria sorbifolia</i>	Blüte	1063	
<i>Sorbus aucuparia</i>	Blüte	1063	
<i>Spiraea bracteata</i>	Blüte	397	

Saxifragaceae			
Philadelphus delavari	Blüte		1063
Solanaceae			
Atropa belladonna	Blüte		397
Nicotiana sp., Latakia	Bodenblatt		447
Sterculiaceae			
Theobroma sp., Kakao	Bohnenaroma		237
Tamariaceae			
Tamarix dahurica	Infloreszenz		397
<u>Angiospermae (Monocotyledoneae)</u>			
Araceae			
Arum maculatum	Spadix		397

N-Methyl- $\beta$ -phenylethylamin

Angiospermae (Dicotyledoneae)

Cactaceae			
Dolichothele sphaerica			239
Dolichothele surculosa			238
Chenopodiaceae			
Arthrophytum leptocladum			484
Leguminosae			
Acacia accola	Stamm/Blatt/Blüte		1226
Acacia adunca	Blatt		300
Acacia augustissima	Blatt		154
Acacia berlandieri	Blatt		152, 153
Acacia constricta	Blatt		154
Acacia crassiuscula			700
Acacia greggii	Blatt		154
Acacia praetervis	Stamm/Blatt		1226
Acacia prominens	Blattknospe		1225
Acacia rigidula	Blatt		154
Acacia roemeriana	Blatt		154
Acacia schottii	Blatt		154
Acacia texensis	Blatt		154
Alhagi pseudalhagi	Stengel/Wurzel		336
Cassia marilandica	Blatt		154
Dalea frutescens	Blatt		154
Gleditsia triacanthos	Blatt		154

Angiospermae (Monocotyledoneae)

Orchidaceae			
Eria jarensis			405

N,N-Dimethyl- $\beta$ -phenylethylamin

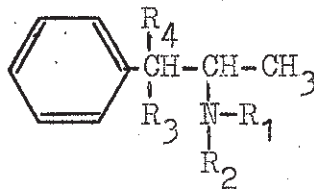
Angiospermae (Monocotyledoneae)

Orchidaceae			
Eria jarensis			405

Halostachin

Angiospermae (Dicotyledoneae)

Chenopodiaceae			
Halostachys caspica			703



	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>	<u>R<sub>3</sub></u>	<u>R<sub>4</sub></u>
L-Norephedrin	H	H	OH	H
D-Norpseudoephedrin	H	H	H	OH
L-Ephedrin	H	CH <sub>3</sub>	OH	H
D-Pseudoephedrin	H	CH <sub>3</sub>	H	OH
N-Methyl-L-ephedrin	CH <sub>3</sub>	CH <sub>3</sub>	OH	H
N-Methyl-D-pseudoephedrin	CH <sub>3</sub>	CH <sub>3</sub>	H	OH

### L-Norephedrin

#### Gymnospermae

##### Ephedraceae

Ephedra sp.	Ma-Huang x)	487
Ephedra sp. (Vorkommen: Südeuropa)		1253

#### Angiospermae (Dicotyledoneae)

##### Rosaceae

Prunus sp., red plum	Frucht	1175
----------------------	--------	------

##### Rutaceae

Citrus sinensis	Fruchtmark	1175
-----------------	------------	------

##### Solanaceae

Solanum tuberosum		1175
-------------------	--	------

#### Angiospermae (Monocotyledoneae)

##### Musaceae

Musa sp.	Schale/Fruchtmark	1175
----------	-------------------	------

### D-Norpseudoephedrin

#### Gymnospermae

##### Ephedraceae

Ephedra sp.	Ma-Huang x)	751, 1043
-------------	-------------	-----------

#### Angiospermae (Dicotyledoneae)

##### Celastraceae

Catha edulis		267
Catha edulis	Blatt + Trieb, jung	907
Catha edulis	Blatt + Zweigrinde	71
Catha edulis	Stamm	21
Catha edulis	Zweig	1083

x) siehe S. 185

Catha edulis	Blatt	21, 70, 183, 301, 496, 734, 810, 894, 1083, 1243
--------------	-------	--

L-EphedrinGymnospermaeEphedraceae

Ephedra alata var. alenda	Stengel/Wurzel	823
Ephedra altissima		359
Ephedra andina		177, 1269
Ephedra distachia		821
Ephedra distachia	unterird. Teile	671
Ephedra distachia	Sproß	1022
Ephedra equisetina		820, 870, 1114
Ephedra equisetina	Zweig, grün	18
Ephedra equisetina	Stengel	292
Ephedra gerardiana		581, 870
Ephedra gerardiana var. wallichii		860
Ephedra gracilis	D.	163
Ephedra intermedia		185, 581, 860, 870
Ephedra intermedia	unterird. Teile	671
Ephedra nebrodensis		157, 359
Ephedra nebrodensis var. procera		861
Ephedra nevadensis		869
Ephedra procera		206, 821, 1020
Ephedra procera	unterird. Teile	671
Ephedra shennungiana		1114
Ephedra sinica		870
Ephedra sinica	Stengel	1, 292
Ephedra triandra		148
Ephedra vulgaris		359
Ephedra vulgaris	Kraut	706, 750
Ephedra vulgaris var. helvetica		687, 733, 750, 1293
Ephedra sp. (Vorkommen: Südeuropa)		1253
Ephedra sp.	Ma-Huang x)	751

Taxaceae

Taxus baccata	Blatt	150, 372
---------------	-------	----------

Angiospermae (Dicotyledoneae)Celastraceae

Catha edulis		267
Catha edulis	Blatt	496

Malvaceae

Sida cordifolia	Pflanze, ganz	340
Sida cordifolia	Wurzel	328
Sida spp., Balas	Wurzel	254

D-PseudoephedrinGymnospermae

Ephedraceae		
Ephedra alata	Zweig	87
x) siehe S. 185		



Ephedra alata	Stamm	1
Ephedra altissima		17, 359
Ephedra distachia		821
Ephedra equisetina		820, 870
Ephedra equisetina	Stengel	292
Ephedra equisetina	Zweig, grün	18
Ephedra fragilis		17
Ephedra gerardiana		870
Ephedra gracilis	D.	163
Ephedra intermedia		860, 870
Ephedra nebrodensis		157, 359
Ephedra pachyclada		860
Ephedra procera		17, 206,
		1020
Ephedra sinica		870
Ephedra sinica	Stengel	292
Ephedra vulgaris		17, 359
Ephedra vulgaris var. helvetica		178, 705
Ephedra vulgaris var. helvetica	Kraut	715
Ephedra sp. (Vorkommen: Südeuropa)		1253
Ephedra sp.	Ma-Huang x)	186, 751

N-Methyl-L-ephedrin

Gymnospermae

Ephedraceae

Ephedra sp. (Vorkommen:  
Südeuropa)

Ephedra sp.

Ma-Huang x)

1253  
751, 1042

N-Methyl-D-pseudoephedrin

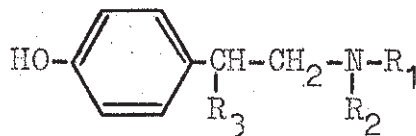
Gymnospermae

Ephedraceae

Ephedra sp.

Ma-Huang x)

751



	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>	<u>R<sub>3</sub></u>
Tyramin	H	H	H
Octopamin	H	H	OH
N-Methyltyramin	H	CH <sub>3</sub>	H
Synephrin	H	CH <sub>3</sub>	OH
β-O-Methylsynephrin	H	CH <sub>3</sub>	OCH <sub>3</sub>
Hordenin	CH <sub>3</sub>	CH <sub>3</sub>	H

x) siehe S. 185



TyraminBacteriophyta

## Brevibacteriaceae

Brevibacterium linens

1134

Fungi

## Clavicipitaceae

Claviceps purpurea

54, 55, 56  
57, 453,  
569

Claviceps purpurea

Secale cornutum

274

## Coprinnaceae

Coprinus atramentarius

Fruchtkörper

652

Coprinus comatus

643, 644

## Phallaceae

Phallus impudicus

Fruchtkörper, jung

651

## Polyporaceae

Boletus zelleri

622

Polyporus berkeleyi

622, 1219

Polyporus cristatus

622

Polyporus montanus

1219

Polyporus sulphureus

622

## Saccharomycetaceae

Saccharomyces sp., Brand A

1016

Saccharomyces sp., Brand B

1016

Saccharomyces sp., Bierhefe

88

Angiospermae (Dicotyledoneae)

## Anacardiaceae

Schinus terebinthifolius

Blatt

1222

## Berberidaceae

Nandina domestica

Blatt

1222

## Bignoniaceae

Jacaranda acutifolia

Blatt

1222

Pyrostegia ignea

Blatt

1222

## Cactaceae

Azureocereus ayacuchensis

621

Cereus aethiops

908

Cereus forbesii, O

10

Cereus glaucus, SD

10

Cereus peruvianus

10

Cereus peruvianus monstrosus DC

10

Coryphantha macromeris var.

runyonii

509, 511

Coryphantha runyonii

10

Echinopsis rhodotricha

11

Lophophora williamsii

659, 695,

698

Mammillaria elongata

1220

Obregonia denegrii

134, 767

Opuntia clavata

1182

Stetsonia coryne

11

Trichocereus bridgesii

10

Trichocereus camarguensis

10

Trichocereus courantii

11

Trichocereus cuzcoensis

11, 633

Trichocereus fulvilanus

11

Trichocereus knuthianus

11

Trichocereus macrogonus		10	
Trichocereus manguinii		11	
Trichocereus pachanoi		9,	10
Trichocereus peruvianus		10	
Trichocereus purpureopilosus		11	
Trichocereus santiaguensis		11	
Trichocereus tunariensis		11	
Trichocereus werdermannianus		9	
Caprifoliaceae			
Sambucus canadensis	Blatt	1222	
Viburnum odoratissimum	Blatt	1222	
Chenopodiaceae			
Haloxylon salicornicum		713	
Spinacia oleracea	Blatt	1175	
Compositae			
Aster linariifolius	Blatt	1222	
Carduus marianus	Same	1177	
Silybum marianum	Semen Cardui mariae	1177	
Silybum marianum	Frucht	74	
Cruciferae			
Capsella bursa-pastoris		156	
Geraniaceae			
Erodium cicutarium		260	
Juglandaceae			
Juglans nigra	Blatt	1222	
Labiatae			
Lamium album	Blüte	607	
Lauraceae			
Persea americana	Frucht	1175	
Leguminosae			
Acacia berlandieri		5	
Acacia berlandieri	Blatt	152	
Acacia greggii	Blatt	154	
Acacia roemeriana	Blatt	154	
Acacia texensis	Blatt	154	
Calliandra haematocephala	Blatt	1222	
Cassia alata	Blatt	1222	
Desmodium cephalotes	Wurzel, stengelbürtig	333	
Desmodium tiliaefolium	Wurzel	335	
Desmodium triflorum	Blatt	337,	338
Desmodium triflorum	Wurzel/Stengel	338	
Erythrina crista-galli	Blatt	1222	
Genista spartium	Same/Keim	202	
Gleditsia triacanthos	Blatt	154	
Glycine max		1016	
Prosopis alba		357	
Prosopis glandulosa		154	
Prosopis nigra	Blatt	730	
Sarothamnus scoparius	Hülse, g.	461	
Sarothamnus scoparius	Hülse, grün	461,	958
Sarothamnus scoparius	Hülse	462	
Sarothamnus scoparius	Zweig, belaubt	461	
Sarothamnus scoparius	Blütenknospe	461	
Sarothamnus scoparius	Zweig/Blüte	203,	461,
		462	
Sarothamnus scoparius	Stamm/Wurzel	203	
Sarothamnus scoparius	Same/Keim	1153	

Loranthaceae		
Phoradendron argentinum	Blatt	358
Phoradendron californicum		207
Phoradendron flavescens		207
Phoradendron hieronymi	Blatt	358
Phoradendron liga	Blatt	358
Phoradendron villosum		207
Phoradendron wattii		253
Phoradendron sp. (Mistletoe)	Blatt	1222
Phrygilanthus flagellaris	Blatt	358
Psittacanthus cuneifolius	Blatt	358
Viscum album		797
Magnoliaceae		
Magnolia denudata	Blatt	689
Magnolia grandiflora	Blatt	689
Magnolia kobus	Blatt/Blüte	689
Magnolia liliiflora	Blatt/Knospe	689
Magnolia obovata	Blatt	689
Papaveraceae		
Chelidonium majus	Kraut, g. + Wurzel, g.	606
Ranunculaceae		
Aconitum napellus	Wurzel	285
Aconitum napellus (Winterpflanze)	Wurzelknolle/Seiten- wurzel/Knospe	286
Aconitum napellus (Sommerpflanze)	Wurzelknolle/Blatt/ Stengel/Blütenknospe/ Blüte/Frucht, jung	286
Aconitum paniculatum	Wurzel	285
Rosaceae		
Prunus sp., red plum	Frucht	1175
Rutaceae		
Citrus limon, Meyer	Saft	1079, 1221
Citrus reticulata, Cleopatra	Saft	1221
Citrus reticulata, Cleopatra	Blatt/Frucht	1222
Citrus reticulata, Dancy-Tange- rine	Saft	1079, 1221
Citrus reticulata, Robinson-Tan- gerine	Saft	1079
Citrus reticulata, Tangerine	Blatt/Frucht	1222
Citrus sinensis	Blatt	1222
Citrus sinensis	Fruchtmark	1175
Citrus sinensis, Murcott-Orange	Saft	1079
Citrus sinensis, Temple-Orange	Saft	1079
Citrus sp., Troyer-Citrange	Saft	1079
Solanaceae		
Lycopersicon esculentum	Frucht	1175
Lycopersicon esculentum	Blatt	1222
Solanum melongena		1175
Solanum tuberosum		1175
<u>Angiospermae (Monocotyledoneae)</u>		
Amaryllidaceae		
Amaryllus vittata	Blatt/Zwiebel	1222
Crinum yuccaeflorum	Stengelausfluß	302
Crinum sp., Christopher-Lilie	Blatt	1222
Crinum sp., Crinum-Lilie	Blatt	1222
Haemanthus katharinae	Blatt	1222
Hymenocallis americana	Blatt	1222
Pancratium maritimum		928

Araceae			
Colocasia antiquorum	Blatt		1222
Bromeliaceae			
Ananas comosus	Saft		1016
Cyperaceae			
Cyperus papyrus	Blatt		1222
Mariscus jamaicensis	Blatt		1222
Gramineae			
Echinochloa frumentacea	Same		942
Hordeum vulgare, Sorte Peragis, mittelfrüh II, Wintergerste	Keimwurzel		864
Hordeum vulgare, Sorte Saale, Sommergerste	Keimwurzel		864
Hordeum sp.	Keimling		143
Hordeum sp.	Keimwurzel		275
Hordeum sp.	Wurzel		620
Panicum miliaceum	Schöbling von Sämling/Same		232
Zea mays			771
Liliaceae			
Chlorophytum capense	Blatt		1222
Cordyline terminalis	Blatt		1222
Liriope spicata	Blatt		1222
Polygonatum officinale	Beere		638
Musaceae			
Musa paradisiaca	Blatt/Fruchtschale		1222
Musa sp.	Schale/Fruchtmark		1175

#### Octopamin

#### Angiospermae (Dicotyledoneae)

Rutaceae			
Citrus limon, Meyer	Saft		1078, 1079, 1221
Citrus limon, Meyer	Blatt		1078
Citrus reticulata, Cleopatra	Saft		1221
Citrus reticulata, Cleopatra	Blatt/Frucht		1222
Citrus reticulata, Dancy-Tangerine	Saft		1079, 1221
Citrus reticulata, Robinson-Tangerine	Saft		1079
Citrus reticulata, Tangerine	Blatt/Frucht		1222
Citrus sinensis, Murcott-Orange	Saft		1079
Citrus sinensis, Temple-Orange	Saft		1079
Citrus sp., Troyer-Citrange	Saft		1079
Solanaceae			
Capsicum frutescens	Blatt		1222

#### Angiospermae (Monocotyledoneae)

Amaryllidaceae			
Amaryllis vittata	Blatt		1222
Cyperaceae			
Cyperus papyrus	Blatt		1222
Cyperus rotundus	Blatt		1222
Gramineae			
Lolium multiflorum	Keimpflanze		384
Liliaceae			
Liriope spicata	Blatt		1222

N-MethyltyraminFungi

## Polyporaceae

Boletus zelleri	622	
Polyporus berkeleyi	622,	1219
Polyporus giganteus	622	
Polyporus sulphureus	622	
Polyporus tomentosus	622	

Angiospermae (Dicotyledoneae)Cactaceae

Ariocarpus fissuratus var. fissuratus	696	
Ariocarpus fissuratus var. lloydii	696	
Ariocarpus kotschoubeyanus	766	
Ariocarpus retusus	107	
Ariocarpus trigonus	1057	
Coryphantha cornifera	431	
Coryphantha cornifera var. echinus	431	
Coryphantha durangensis	431	
Coryphantha elephantidens	431	
Coryphantha macromeris var. runyonii	509,	511
Coryphantha ottonis	431	
Coryphantha pectinata	431	
Coryphantha poselgeriana	431	
Coryphantha ramillosa	943	
Dolichothele sphaerica	239	
Dolichothele surculosa	238	
Lophophora williamsii	659,	698
Lophophora sp., Peyotl	1113	
Mammillaria elongata	1220	
Obregonia denegrii	134,	767
Opuntia clavata	1182	
Solisia pectinata	134	
Stetsonia coryne	11	
Trichocereus camarguensis	10	
Trichocereus courantii	11	
Trichocereus fulvilanus	11	
Trichocereus manguinii	11	
Trichocereus purpureopilosus	11	
Trichocereus schickendantzii	10	
Trichocereus skottsbergii	11	
Trichocereus thelegonus	11	

## Chenopodiaceae

Anabasis jaxartica	Pflanze, g.	834
Haloxylon salicornicum		713

## Euphorbiaceae

Croton humilis		1087, 1088
----------------	--	------------

## Leguminosae

Acacia berlandieri		5
Acacia berlandieri	Blatt	152
Acacia rigidula	Blatt	154
Acacia roemeriana	Blatt	154
Desmodium gangeticum	Wurzel, g.	325
Desmodium gangeticum	Wurzel	327
Desmodium gangeticum	Stiel + Blatt	326
Prosopis glandulosa		154



Rutaceae		
Citrus limon, Meyer	Saft	1221
Citrus reticulata, Cleopatra	Saft	1221
Citrus reticulata, Cleopatra	Blatt/Frucht	1222
Citrus reticulata, Dancy-Tangerine	Saft	1221
Citrus reticulata, Tangerine	Blatt/Frucht	1222
Citrus sinensis	Blatt/Frucht	1222
Citrus sinensis, Hamlin	Saft	1221
Citrus sinensis, Nabelfrucht	Saft	1221
Citrus sinensis, Pineapple	Saft	1221
Citrus sinensis, Valencia	Saft	1221

### Angiospermae (Monocotyledoneae)

Amaryllidaceae		
Amaryllis vittata	Blatt/Zwiebel	1222
Haemanthus katharinae	Blatt	1222
Pancratium maritimum		928
Gramineae		
Echinochloa frumentacea	Same	942
Hordeum vulgare, Sorte Peragis, mittelfrüh II, Wintergerste	Keimwurzel	864
Hordeum vulgare, Sorte Saale, Sommergerste	Keimwurzel	864
Hordeum sp., Montcalm	Wurzel	543
Hordeum sp., O.A.C. 21	Wurzel	543
Hordeum sp., Olli	Wurzel	543
Hordeum sp., Sanalta	Wurzel	543
Hordeum sp.	Keimling	143
Hordeum sp.	Keimwurzel	275
Panicum miliaceum		106
Panicum miliaceum	Keimpflanze	863

### Synephrin

### Angiospermae (Dicotyledoneae)

Cactaceae		
Coryphantha cornifera		431
Coryphantha cornifera var. echinus		431
Coryphantha durangensis		431
Coryphantha elephantidens		431
Coryphantha maeromeris var. runyonii		509, 511
Coryphantha ottonis		431
Coryphantha pectinata		431
Coryphantha poselgeriana		431
Coryphantha ramillosa		943
Dolichothele sphaerica		239
Dolichothele surculosa		238
Mammillaria elongata		1220
Moraceae		
Ficus bengalensis	Blatt	1222
Rutaceae		
Citrus limon, Meyer	Saft	1079, 1221
Citrus limon, Rough	Saft	1079
Citrus limon, Sweet	Saft	1079
Citrus reticulata	Blatt	1077
Citrus reticulata, Cleopatra	Saft	1221
Citrus reticulata, Cleopatra	Blatt/Frucht	1222

Citrus reticulata, Dancy-Tangerine	Saft	1079, 1221
Citrus reticulata, Robinson-Tangerine	Saft	1079
Citrus reticulata, Tangerine	Saft	1076, 1080
Citrus reticulata, Tangerine	Blatt	1077
Citrus reticulata, Tangerine	Blatt/Frucht	1222
Citrus sinensis	Blatt/Frucht	1222
Citrus sinensis	Blatt	1077
Citrus sinensis	Saft	1076
Citrus sinensis, Hamlin	Saft	1076, 1079, 1221
Citrus sinensis, Murcott	Saft	1076, 1079
Citrus sinensis, Nabelfrucht	Saft	1079, 1221
Citrus sinensis, Parson Brown	Saft	1079
Citrus sinensis, Pineapple	Saft	1076, 1079, 1221
Citrus sinensis, Pope	Saft	1079
Citrus sinensis, Temple	Saft	1076, 1079
Citrus sinensis, Valencia	Saft	1076, 1077, 1079, 1221
Citrus sp., Calamondin	Saft	1079
Citrus sp., Orlando Tangelo	Saft	1079
Citrus sp., Troyer-Citrang	Saft	1079
Citrus sp., Tangelos (Mandarine x Pumelo)	Blatt	1077

#### Angiospermae (Monocotyledoneae)

##### Amaryllidaceae

Amaryllis vittata	Blatt/Zwiebel	1222
Eucharis grandiflora	Blatt	1222
Haemanthus katharinae	Blatt	1222

#### $\beta$ -O-Methylsynephrin

#### Angiospermae (Dicotyledoneae)

##### Cactaceae

Coryphantha cornifera		431
Coryphantha cornifera var. echinus		431
Coryphantha elephantidens		431
Coryphantha pectinata		431
Coryphantha ramillosa		943
Dolichothele sphaerica		239
Mammillaria elongata		1220

##### Rutaceae

Citrus reticulata, Dancy-Tangerine	Blatt	1081
------------------------------------	-------	------

#### Hordein

#### Rhodophyta

##### Phylloporaceae

Phyllophora nervosa		370
---------------------	--	-----

#### Fungi

##### Polyporaceae

Boletus zelleri		622
Polyporus berkeleyi		622, 1219
Polyporus giganteus		622
Polyporus guttulatus		622



Polyporus montanus		1219
Polyporus sulphureus		622
<u>Angiospermae (Dicotyledoneae)</u>		
Aizoaceae		
Sceletium joubertii	Teile, oberird.	34
Berberidaceae		
Nandina domestica	Blatt	1222
Cactaceae		
Ariocarpus agavoides		20, 134
Ariocarpus fissuratus var. fissuratus		696
Ariocarpus fissuratus var. lloydii		696
Ariocarpus kotschoubeyanus		766
Ariocarpus retusus		107
Ariocarpus trigonus		1057
Cereus aethiops		908
Cereus alacriportanus		10
Cereus glaucus		10
Coryphantha cornifera		431
Coryphantha cornifera var. echinus		431
Coryphantha durangensis		431
Coryphantha elephantidens		431
Coryphantha macromeris var. runyonii		509, 511
Coryphantha ottonis		431
Coryphantha pectinata		431
Coryphantha poselgeriana		431
Coryphantha ramillosa		943
Coryphantha runyonii		10
Dolichothele surculosa		238
Echinocereus merkeri		13
Echinopsis eyriesii		10
Echinopsis rhodotricha		11
Gymnocalycium schickendantzii		908
Helianthocereus huascha		10
Helianthocereus pasacana		10
Helianthocereus poco		10
Lophophora diffusa		135
Lophophora williamsii		135, 659, 695, 697, 698
Lophophora sp., 2282; 2306 (A)	Wurzel	1133
Mammillaria elongata		1220
Mammillaria fissurata	g.	406
Obregonia denegrii		134, 767
Opuntia clavata		1182
Pelecyphora aselliformis		11, 134, 765
Pelecyphora pseudopectinata		134
Solisia pectinata		134
Trichocereus candicans		10, 877, 878, 880
Trichocereus lamprochlorus		10, 880
Trichocereus manguinii		11
Trichocereus pachanoi		10
Trichocereus santiaguensis		11
Trichocereus schickendantzii		10
Trichocereus skottsbergii		11
Trichocereus spachianus		10

Trichocereus strigosus		11
Trichocereus taquimbalensis		11
Trichocereus thelegonoides		11
Trichocereus thelegonus		11
Trichocereus tunariensis		11
Turbinicarpus pseudomacrochele		134
<b>Euphorbiaceae</b>		
Securinega virosa	Bodenwurzel	443
<b>Leguminosae</b>		
Acacia berlandieri		5
Acacia confusa		700
Acacia harpophylla	Blatt/Zweig	300
Acacia holoserica	Rinde	300
Acacia maidenii		700
Alhagi pseudalhagi	Stengel/Wurzel	336
Desmodium cephalotes	Wurzel, stengelbürtig	333
Desmodium gangeticum	Wurzel, g.	325
Desmodium gangeticum	Wurzel	327
Desmodium gangeticum	Stiel + Blatt	326
Desmodium tiliaefolium	Wurzel	335
Desmodium triflorum	Wurzel/Stengel/Blatt	338
Tamarindus indica	Rinde	1227
<b>Rutaceae</b>		
Citrus reticulata	Blatt/Frucht	1222
Citrus reticulata, Cleopatra	Saft	1221
<b>Angiospermae (Monocotyledoneae)</b>		
<b>Amaryllidaceae</b>		
Pancratium maritimum	Stamm, unterirdisch/ Stamm, oberirdisch/ Wurzel/Zwiebel/Same	927
Ungernia ferganica	Blatt	449
Ungernia trisphaera	Blatt	2, 19
Ungernia victoris	Blatt	3
<b>Gramineae</b>		
Avena sativa	Sämling	399
Andropogon sorghum	Sämling	399
Echinochloa frumentacea	Same	942
Hordeum sativum	Sämling/Keimblatt/ Keimwurzel	399
Hordeum vulgare, Sorte Peragis, mittelfrüh II, Wintergerste; Sorte Saale, Sommergerste	Keimwurzel	864
Hordeum sp.	Keimwurzel	143, 275, 868
Hordeum sp.	Keimwurzel/Keimling	1150
Oryza sativa	Sämling	399
Panicum framentaceum	Sämling	399
Panicum italicum	Sämling	399
Panicum miliaceum	Sämling	399
Panicum miliaceum	Schößling	106, 232
Panicum miliaceum	Wurzel/Same	232
Panicum miliaceum	Stamm + Blatt	1227
Phalaris arundinacea		39, 1237
Phalaris arundinacea var. Frontier		38
Phalaris arundinacea var. Ottawa synthetic C; F		38
Phalaris arundinacea (4 var.)	Same	1238
Zea mays	Sämling	399

## Iridaceae

Babiana stricta	Stamm+Blatt+Blüte	1227
Fresia refracta	Stamm+Blatt+Blüte/ Blüte	1227
Ixia cv.	Stamm+Blatt+Blüte	1227
Sparaxis tricolor	Stamm+Blatt+Blüte	1227
Tritonia cv.	Stamm+Blatt+Blüte	1227
Watsonia aletroides	Stamm+Blatt+Blüte	1227
Watsonia bulbifera	Blüte	1227
Watsonia cv. (Vorkommen: Neuseeland)	Stamm+Blatt+Blüte/ Blüte	1227



	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>
Dopamin	H	H
Epinin	CH <sub>3</sub>	H
Noradrenalin	H	OH
l-Adrenalin	CH <sub>3</sub>	OH

DopaminAngiospermae (Dicotyledoneae)

Cactaceae		
Carnegiea gigantea	Rinde	1061
Caryophyllaceae		
Melandryum rubrum		709
Chenopodiaceae		
Beta vulgaris var. altissima		663
Spinacia oleracea		322
Lauraceae		
Persea americana	Frucht	1175
Leguminosae		
Sarothamnus scoparius		1254
Sarothamnus scoparius	Hülse	462
Sarothamnus scoparius	Hülse, grün	461, 957, 958
Sarothamnus scoparius	Zweig/Blüte	203, 461, 462
Sarothamnus scoparius	Zweig, belaubt	461
Sarothamnus scoparius	Blütenknospe	461
Sarothamnus scoparius	Keim	202
Nyctaginaceae		
Hermidium alipes	Wurzel	137
Piperaceae		
Piper amalago		253

Portulacaceae		
Portulaca oleracea		293
Ranunculaceae		
Aconitum napellus	Wurzel	285
Aconitum napellus	Wurzel/Knolle/Blatt/ Stengel/Blütenknospe/ Blüte/Frucht	286
Aconitum paniculatum	Wurzel	285
Solanaceae		
Solanum tuberosum		144
Verbenaceae		
Stachytarpheta jamaicensis		253
<u>Angiospermae (Monocotyledoneae)</u>		
Dioscoreaceae		
Dioscorea batatas	Knolle	1148, 1149
Musaceae		
Musa sapientum var. paradisiaca	Fruchtschale	303
Musa sp., Gros Michel	Frucht/Blütendeck- blatt+andere Pflan- zenteile	366
Musa sp., Mysore	Frucht/Blütendeck- blatt+andere Pflan- zenteile	366
Musa sp.	Außenschale, unreif/ Innenschale, unreif/ Fruchtmark, unreif	1218
Musa sp.	Schale, reif/Frucht- mark, reif	1195
Musa sp.	Schale/Fruchtmark	1175

EpininAngiospermae (Dicotyledoneae)

Leguminosae		
Sarothamnus scoparius	Keim	202
Sarothamnus scoparius	Stamm/Wurzel	203
Sarothamnus scoparius	Zweig/Blüte	203, 461
Sarothamnus scoparius	Blütenknospe/Zweig, belaubt/Hülse, unreif	461
Vicia faba	Keimwurzel/Keimtrieb	828

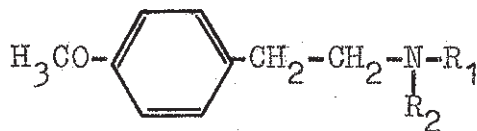
NoradrenalinAngiospermae (Dicotyledoneae)

Leguminosae		
Albizia julibrissin		29
Mimosa pudica		29
Phaseolus multiflorus		29
Pisum sativum		29
Samanea saman		29
Passifloraceae		
Passiflora quadrangularis	Ranke	29
Portulacaceae		
Portulaca oleracea		293
Ranunculaceae		
Aconitum napellus	Wurzel	285
Aconitum napellus	Knospe	286

Aconitum paniculatum	Wurzel	285
Solanaceae		
Solanum tuberosum		144
<u>Angiospermae (Monocotyledoneae)</u>		
Musaceae		
Musa paradisiaca	Schale, unreif/ Fruchtmark, unreif	682
Musa sapientum var. paradisiaca	Schale, unreif; reif; überreif/Fruchtmark, reif; überreif	303
Musa sp., P.B.M.	Fruchtmark	681
Musa sp., R.C.	Fruchtmark	681
Musa sp., W.C.	Fruchtmark	681
Musa sp.	Schale, reif	1195
Musa sp.	Außenschale, unreif/ Innenschale, unreif/ Fruchtmark, unreif	1218

1-AdrenalinAngiospermae (Monocotyledoneae)

Musaceae		
Musa sp., P.B.M.	Fruchtmark	681
Musa sp., R.C.	Fruchtmark	681



	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>
O-Methyltyramin	H	H
N-Methyl-4-methoxyphenylethylamin	H	CH <sub>3</sub>
N,N-Dimethyl-4-methoxyphenylethylamin	CH <sub>3</sub>	CH <sub>3</sub>

O-MethyltyraminAngiospermae (Dicotyledoneae)

Cactaceae		
Coryphantha cornifera		431
Coryphantha ottonis		431
Coryphantha poselgeriana		431
Ericaceae		
Erica lusitanica	Spitze	1228

N-Methyl-4-methoxyphenylethylaminAngiospermae (Dicotyledoneae)

Cactaceae		
Ariocarpus retusus	Pflanze	764
Coryphantha cornifera var. echinus		431

Coryphantha macromeris var.  
 runyonii  
 Coryphantha pectinata  
 Coryphantha ramillosa  
 Coryphantha runyonii

509, 511  
 431  
 943  
 8

N,N-Dimethyl-4-methoxyphenylethylamin

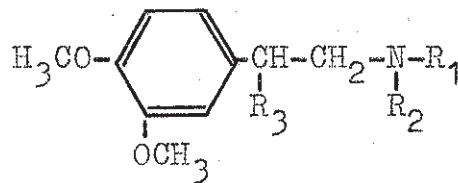
Angiospermae (Dicotyledoneae)

Rutaceae

Teclea simplicifolia

Rinde

46



	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>
Homoveratrylamin	H	H	H
N-Methyl-3,4-dimethoxyphenylethylamin	H	CH <sub>3</sub>	H
Nor-Macromerin	H	CH <sub>3</sub>	OH
N-Methyl-3,4-dimethoxy-β-methoxyphenylethylamin	H	CH <sub>3</sub>	OCH <sub>3</sub>
N,N-Dimethyl-3,4-dimethoxyphenylethylamin	CH <sub>3</sub>	CH <sub>3</sub>	H
Macromerin	CH <sub>3</sub>	CH <sub>3</sub>	OH
N,N-Dimethyl-3,4-dimethoxy-β-methoxyphenylethylamin	CH <sub>3</sub>	CH <sub>3</sub>	OCH <sub>3</sub>

Homoveratrylamin

Angiospermae (Dicotyledoneae)

Cactaceae

Carnegiea gigantea  
 Echinocereus merkeri  
 Lophophora williamsii  
 Pelecyphora aselliformis  
 Stetsonia coryne  
 Trichocereus bridgesii  
 Trichocereus camarguensis  
 Trichocereus courantii  
 Trichocereus macrogonus  
 Trichocereus pachanoi  
 Trichocereus taquimbalensis  
 Trichocereus werdermannianus

12  
 13  
 660  
 765  
 11  
 10  
 10  
 11  
 10  
 9, 10,  
 251  
 11  
 9, 251

Leguminosae

Desmodium tiliaefolium

Wurzel

335



N-Methyl-3,4-dimethoxyphenylethylaminAngiospermae (Dicotyledoneae)

## Cactaceae

Ariocarpus agavoides		134
Ariocarpus fissuratus var. fissuratus		778
Ariocarpus retusus	Pflanze	764
Ariocarpus trigonus		1057
Coryphantha calipensis		133
Coryphantha cornifera		431
Coryphantha cornifera var. echinus		431
Coryphantha durangensis		431
Coryphantha elephantidens		431
Coryphantha macromeris var. runyonii		509, 511
Coryphantha pectinata		431
Coryphantha runyonii		10
Echinocereus merkeri		13
Mammillaria heyderi		134
Pelecypora aselliformis		765

Nor-MacromerinAngiospermae (Dicotyledoneae)

## Cactaceae

Coryphantha calipensis		133
Coryphantha macromeris var. runyonii		509, 510, 511

## Leguminosae

Desmodium tiliaefolium	Wurzel	335
------------------------	--------	-----

N-Methyl-3,4-dimethoxy-β-methoxyphenylethylamin/  
N,N-Dimethyl-3,4-dimethoxy-β-methoxyphenylethylamin

Angiospermae (Dicotyledoneae)

## Cactaceae

Coryphantha calipensis		133
------------------------	--	-----

N,N-Dimethyl-3,4-dimethoxyphenylethylaminAngiospermae (Dicotyledoneae)

## Cactaceae

Echinocereus merkeri		13
----------------------	--	----

## Leguminosae

Desmodium tiliaefolium	Wurzel	335
------------------------	--------	-----

MacromerinAngiospermae (Dicotyledoneae)

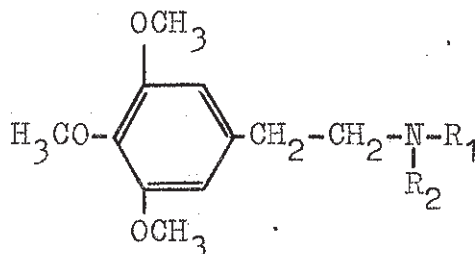
## Cactaceae

Coryphantha cornifera var. echinus		431
Coryphantha elephantidens		431
Coryphantha macromeris		130, 131, 427



Coryphantha macromeris var.  
runyonii  
Coryphantha pectinata  
Coryphantha runyonii

509, 511  
431  
10, 72



	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>
Mezcalin	H	H
N-Methylmezcalin	CH <sub>3</sub>	H
Trichocerein	CH <sub>3</sub>	CH <sub>3</sub>

Mezcalin

Angiospermae (Dicotyledoneae)

Cactaceae

Gymnocalycium gibbosum		250
Lophophora williamsii	g.	407, 1054
Lophophora williamsii		135, 633, 659
Lophophora sp., 2282; 2300; 2306 (A)	Spitze/Wurzel	1133
Opuntia cylindrica		675, 1169
Pelecypora aselliformis		765
Stetsonia coryne		11
Trichocereus bridgesii		10, 251
Trichocereus cuzcoensis		11, 633
Trichocereus fulvilanus		11
Trichocereus macrogonus		10
Trichocereus mannianus		9, 251
Trichocereus pachanoi		9, 10, 214, 251, 836
Trichocereus taquimbalensis		11
Trichocereus terscheckii	g.	882
Trichocereus terscheckii		10, 878
Trichocereus validus		11

N-Methylmezcalin

Angiospermae (Dicotyledoneae)

Cactaceae

Lophophora diffusa		135
Lophophora williamsii	g.	1055
Lophophora williamsii		135, 659
Pelecypora aselliformis		765

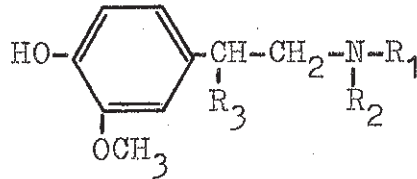
Leguminosae  
 Alhagi pseudalhagi Stengel/Wurzel 336

Trichocerein

Angiospermae (Dicotyledoneae)

Cactaceae

Trichocereus terscheckii g. 882  
 Trichocereus terscheckii 878



	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>
3-Methoxytyramin	H	H	H
N-Methyl-3-methoxytyramin	CH <sub>3</sub>	H	H
N,N-Dimethyl-3-methoxytyramin	CH <sub>3</sub>	CH <sub>3</sub>	H
Metanephrin	CH <sub>3</sub>	H	OH
N-Methyl-metanephrin	CH <sub>3</sub>	CH <sub>3</sub>	OH

3-Methoxytyramin

Angiospermae (Dicotyledoneae)

Cactaceae

Carnegiea gigantea 12  
 Echinocereus merkeri 13  
 Stetsonia coryne 11  
 Trichocereus bridgesii 10  
 Trichocereus camarguensis 10  
 Trichocereus courantii 11  
 Trichocereus cuzcoensis 11, 633  
 Trichocereus knuthianus 11  
 Trichocereus macrogonus 10  
 Trichocereus manguinii 11  
 Trichocereus pachanoi 9, 10,  
 214, 661  
 Trichocereus peruvianus 10  
 Trichocereus taquimbalensis 11  
 Trichocereus werdermannianus 9

N-Methyl-3-methoxytyramin

Angiospermae (Dicotyledoneae)

Cactaceae

Anhalonium lewinii 633  
 Trichocereus courantii 11

N,N-Dimethyl-3-methoxytyraminAngiospermae (Dicotyledoneae)

Cactaceae

Ariocarpus agavoides

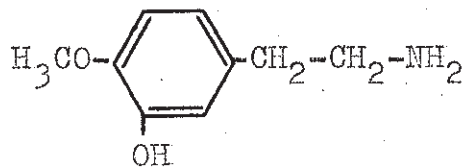
134

Metanephrin/N-Methyl-metanephrinAngiospermae (Dicotyledoneae)

Cactaceae

Coryphantha macromeris var.  
runyonii

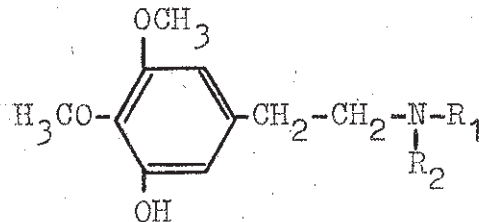
509, 511

3-Hydroxy-4-methoxyphenylethylaminAngiospermae (Dicotyledoneae)

Cactaceae

Pachycereus pecten-aborriginum

11



	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>
3-Demethylmezcalin	H	H
N-Methyl-3-hydroxy-4,5-dimethoxyphenylethylamin	CH <sub>3</sub>	H
3-Demethyltrichocerein	CH <sub>3</sub>	CH <sub>3</sub>

3-DemethylmezcalinAngiospermae (Dicotyledoneae)

Cactaceae

Anhalonium lewinii

135, 493,  
633, 661

Trichocereus cuzcoensis

11, 633

Trichocereus pachanoi

10

N-Methyl-3-hydroxy-4,5-dimethoxyphenylethylaminAngiospermae (Dicotyledoneae)

Cactaceae

Lophophora williamsii

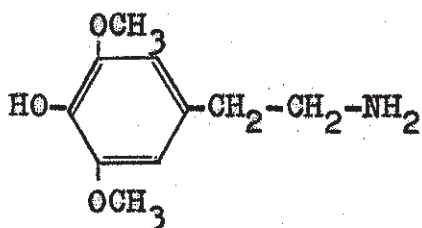
658

3-DemethyltrichocereinAngiospermae (Dicotyledoneae)

Cactaceae

Lophophora williamsii

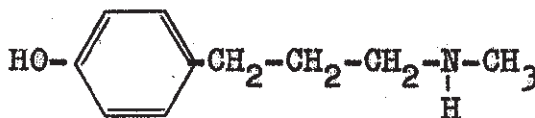
Pelecypora aselliformis

657, 658  
134, 7653,5-Dimethoxy-4-hydroxyphenylethylaminAngiospermae (Dicotyledoneae)

Cactaceae

Trichocereus pachanoi

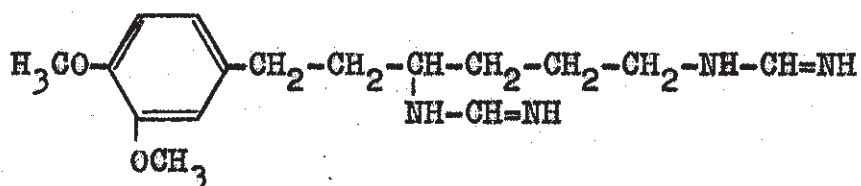
Trichocereus werdermannianus

9, 10,  
661  
9N-MethylhomotyraminAngiospermae (Dicotyledoneae)

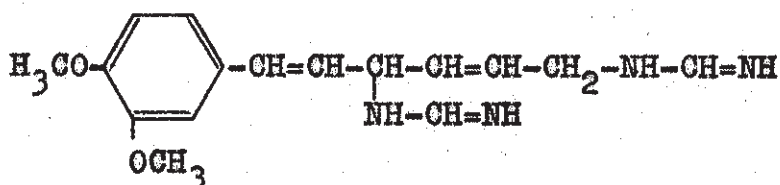
Euphorbiaceae

Croton humilis

1087, 1088



Acanthoidin



Acanthoin

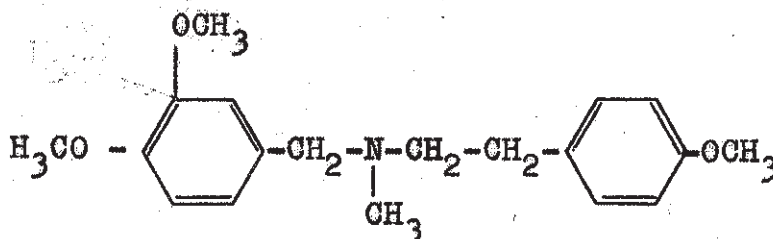
Acanthoidin/AcanthoinAngiospermae (Dicotyledoneae)

## Compositae

Carduus acanthoides

Stengel

312

BelladinAngiospermae (Monocotyledoneae)

## Amaryllidaceae

Amaryllis belladonna, Hybrid

Zwiebel

1204

Grinum powelli (moorei x  
longifolium)

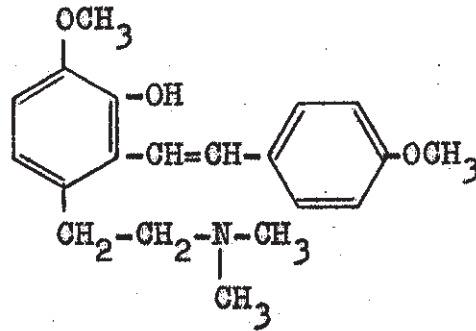
Zwiebel

99

Nerine bowdenii

Zwiebel

662

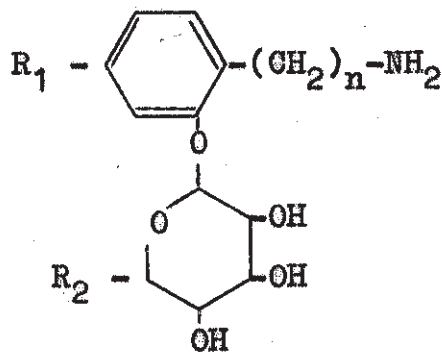
LeonticinAngiospermae (Dicotyledoneae)

## Berberidaceae

Leontice leontopetalum

Wurzelknolle

699



	n	R <sub>1</sub>	R <sub>2</sub>
o-( $\alpha$ -L-Rhamnopyranosyloxy)-benzylamin	1	H	CH <sub>3</sub>
Dopamin-3-O-glykosid	2	OH	CH <sub>2</sub> OH

o-( $\alpha$ -L-Rhamnopyranosyloxy)-benzylaminAngiospermae (Dicotyledoneae)

## Resedaceae

Reseda odorata

Blüte

1052

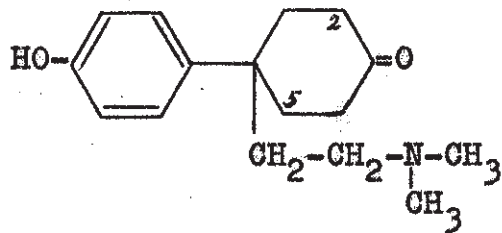
Dopamin-3-O-glykosidAngiospermae (Dicotyledoneae)

## Leguminosae

Entada pursaetha

Same

613



Dihydrojoubertiamin.  
 Joubertiamin  
 Dehydrojoubertiamin

4  
 -  
 2  
 2, 5

Dihydrojoubertiamin/Joubertiamin/Dehydrojoubertiamin

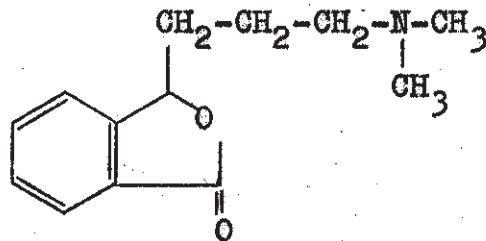
Angiospermae (Dicotyledoneae)

Aizoaceae

Seeletium joubertii

oberird. Teile

34



Pierardin

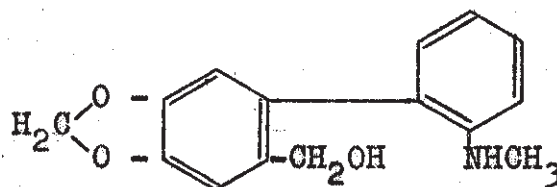
Angiospermae (Monocotyledoneae)

Orchidaceae

Dendrobium pierardii

Pflanze

265



Ismin

Angiospermae (Monocotyledoneae)

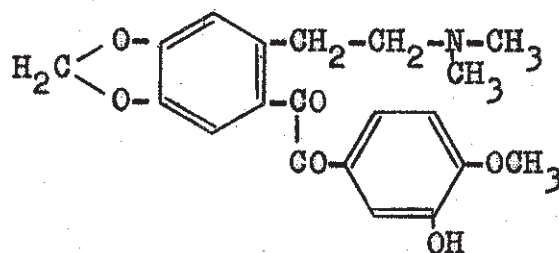
Amaryllidaceae

Ismene sp.

Zwiebel

422





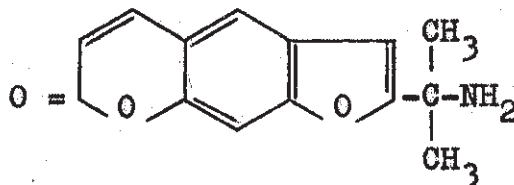
Cryptopleurospermin

Angiospermae (Dicotyledoneae)

Lauraceae

Cryptocaria pleurosperma

481



Prangosin

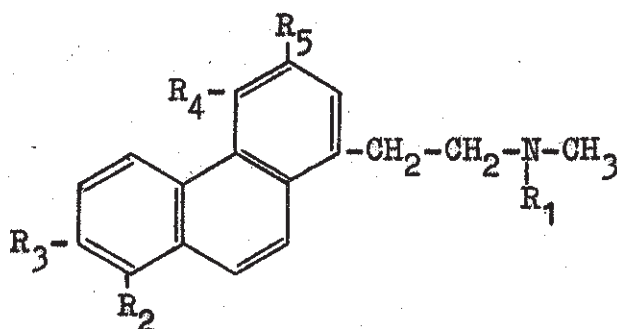
Angiospermae (Dicotyledoneae)

Umbelliferae

Prangos pabularia

Same

483



	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	R <sub>4</sub>	R <sub>5</sub>
Noruariopsamin	H	OCH <sub>3</sub>	OCH <sub>3</sub>	OCH <sub>3</sub>	OCH <sub>3</sub>
Aporhinmethin	CH <sub>3</sub>	H	H	H	H
1-Dimethylaminoethyl-3-hydroxy-4-methoxy-phenanthren	CH <sub>3</sub>	H	H	OCH <sub>3</sub>	OH
Atherosperminin	CH <sub>3</sub>	H	H	OCH <sub>3</sub>	OCH <sub>3</sub>
Uvariopsamin	CH <sub>3</sub>	OCH <sub>3</sub>	OCH <sub>3</sub>	OCH <sub>3</sub>	OCH <sub>3</sub>

Noruariopsamin/UvariopsaminAngiospermae (Dicotyledoneae)

## Annonaceae

Uvariopsis guineensis	Rinde	616
-----------------------	-------	-----

AporhinmethinAngiospermae (Dicotyledoneae)

## Aristolochiaceae

Aristolochia argentina	Wurzel	856, 909
------------------------	--------	----------

1-Dimethylaminoethyl-3-hydroxy-4-methoxy-phenanthrenAngiospermae (Dicotyledoneae)

## Annonaceae

Monodora angolensis	Blatt	617
---------------------	-------	-----

AtherospermininAngiospermae (Dicotyledoneae)

## Annonaceae

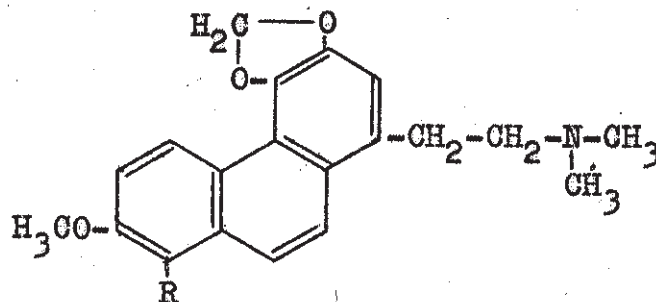
Annona muricata	Rinde	7
Enantia chlorantha	Blatt	381

## Lauraceae

Cryptocarya angulata	Rinde	197
----------------------	-------	-----

## Monimiaceae

Atherosperma moschatum	Rinde	80
Atherosperma moschatum	Kernholz	81



	<u>R</u>	
Uvariopsin	H	
8-Methoxy-uvariopsin	OCH <sub>3</sub>	

UvariopsinAngiospermae (Dicotyledoneae)

## Annonaceae

Uvariopsis congolana	Stammrinde + Wurzelrinde	105
Uvariopsis guineensis	Rinde	616
Uvariopsis solheidii	Stammrinde + Wurzelrinde	103
Uvariopsis solheidii	Wurzelrinde	104

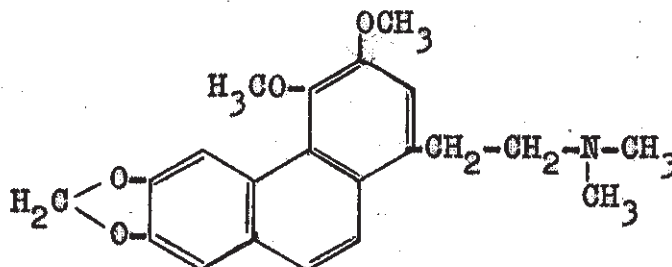
8-Methoxy-uvariopsinAngiospermae (Dicotyledoneae)

Annonaceae

Uvariopsis guineensis

Rinde

616

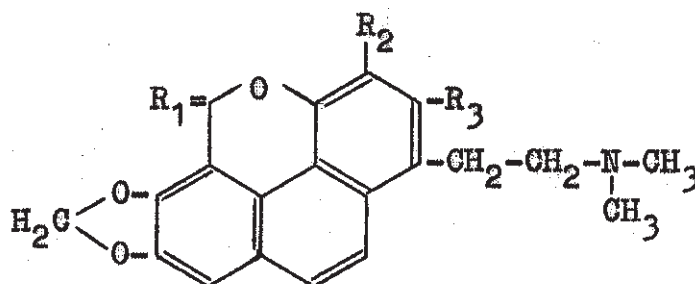
ThalictuberinAngiospermae (Dicotyledoneae)

Ranunculaceae

Thalictrum thunbergii

Wurzel

313



	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>	<u>R<sub>3</sub></u>
Thaliglucin	H, H	OCH <sub>3</sub>	H
Thalicsin	O	H	OCH <sub>3</sub>
Thaliglucinon	O	OCH <sub>3</sub>	H

Thaliglucin/ThaliglucinonAngiospermae (Dicotyledoneae)

Ranunculaceae

Thalictrum rugosum

oberird. Teile

722

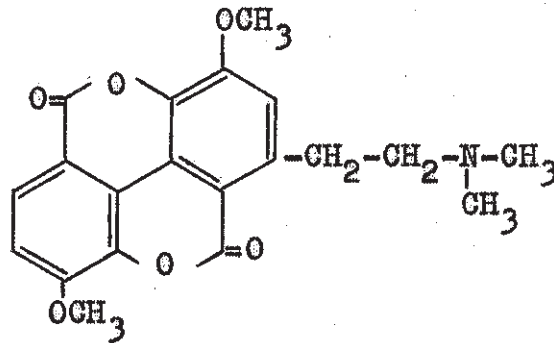
ThalicsinAngiospermae (Dicotyledoneae)

Ranunculaceae

Thalictrum longipedunculatum

oberird. Teile

516



Thaspin

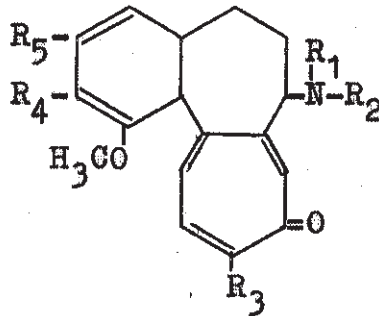
Angiospermae (Dicotyledoneae)

Berberidaceae

*Leontice ewersmannii*

oberird. Teile

833



	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	R <sub>4</sub>	R <sub>5</sub>
Desacetylcolchicein	H	H	OH	OCH <sub>3</sub>	OCH <sub>3</sub>
2-Desmethyldesacetylcolchicin	H	H	OCH <sub>3</sub>	OCH <sub>3</sub>	OH
Desacetylcolchicin	H	H	OCH <sub>3</sub>	OCH <sub>3</sub>	OCH <sub>3</sub>
3-Desmethyldemecolcin	H	CH <sub>3</sub>	OCH <sub>3</sub>	OH	OCH <sub>3</sub>
2-Desmethyldemecolcin	H	CH <sub>3</sub>	OCH <sub>3</sub>	OCH <sub>3</sub>	OH
Demecolcin	H	CH <sub>3</sub>	OCH <sub>3</sub>	OCH <sub>3</sub>	OCH <sub>3</sub>
N-Methyldemecolcin	CH <sub>3</sub>	CH <sub>3</sub>	OCH <sub>3</sub>	OCH <sub>3</sub>	OCH <sub>3</sub>

Desacetylcolchicein/Desacetylcolchicin

Angiospermae (Monocotyledoneae)

Liliaceae

*Merendera robusta*

1168

2-Desmethyldesacetylcolchicin

Angiospermae (Monocotyledoneae)

Liliaceae

*Colchicum autumnale*

*Colchicum autumnale*

Same

840

937

3-DesmethyldemecolcinAngiospermae (Monocotyledoneae)

## Liliaceae

Colchicum autumnale		840
Colchicum autumnale	Same	741
Gloriosa virescens	Knolle	840

2-DesmethyldemecolcinAngiospermae (Monocotyledoneae)

## Liliaceae

Colchicum autumnale	Blüte/Blatt/Knolle	840
Colchicum cornigerum	Blatt/Knolle	918

DemecolcinAngiospermae (Monocotyledoneae)

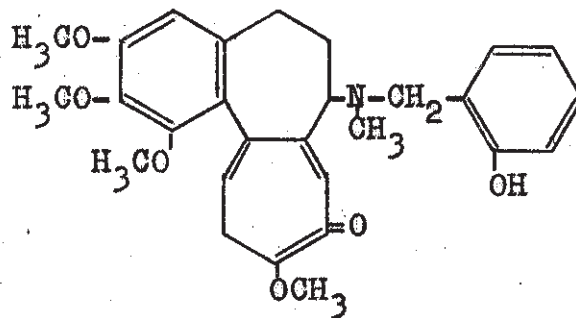
## Liliaceae

Bulbocodium vernum	Pflanze, ganz + Blüte + Knolle	936
Colchicum arenarium		932
Colchicum autumnale		840, 932
Colchicum autumnale	Knolle	291, 930, 931, 934, 938
Colchicum autumnale	Same	938
Colchicum autumnale	Blüte	930, 935
Colchicum autumnale album		932
Colchicum autumnale major		932
Colchicum autumnale minor		932
Colchicum autumnale minor	Pflanze, ganz/Knolle	291
Colchicum bornmülleri		932
Colchicum chalcedonicum	Knolle	68
Colchicum cilicum		932
Colchicum cornigerum	Same/Blatt/Stamm/ Blüte	918
Colchicum hierosolymitanum		932
Colchicum hierosolymitanum	Same/Knolle	938
Colchicum ritchii	Pflanze, ganz	291
Colchicum speciosum		932
Colchicum speciosum	Knolle	545, 684
Colchicum speciosum	Blüte/Sproßknolle	683
Colchicum steveni	Pflanze, ganz, blühend	291
Colchicum szovitsii	Knolle	68
Colchicum tunicatum	Pflanze, ganz	291
Colchicum turcicum	Knolle	68
Colchicum Hybrid Disraeli	Knolle/Pflanze, ganz	291
Colchicum sp., Lilac Wonder		932
Colchicum sp., The Giant		932
Gloriosa virescens	Knolle	840
Littonia modesta		840
Merendera attica	Knolle	938

N-MethyldemecolcinAngiospermae (Monocotyledoneae)

## Liliaceae

Colchicum autumnale		840
Colchicum cornigerum	Same/Blatt/Stamm/ Blüte	918



Speciosin

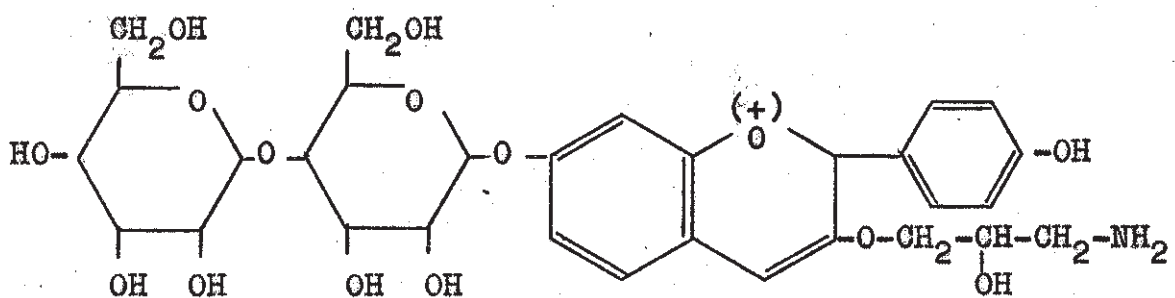
Angiospermae (Monocotyledoneae)

Liliaceae

*Colchicum speciosum*

Knolle

544



Nudicaulin

Angiospermae (Dicotyledoneae)

Papaveraceae

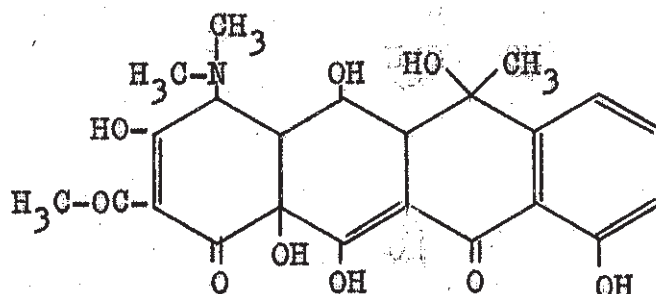
*Papaver nudicaule*

Blüte

855

*Papaver pyrenaicum* ssp. *rhaeticum* Petalum

887



ADOT

Bacteriophyta

Actinomycetaceae

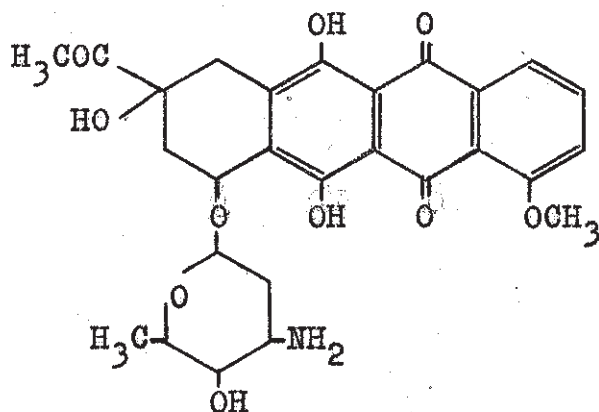
*Actinomyces rimosus*, Mutante 91

311

Streptomycetaceae

*Streptomyces rimosus*

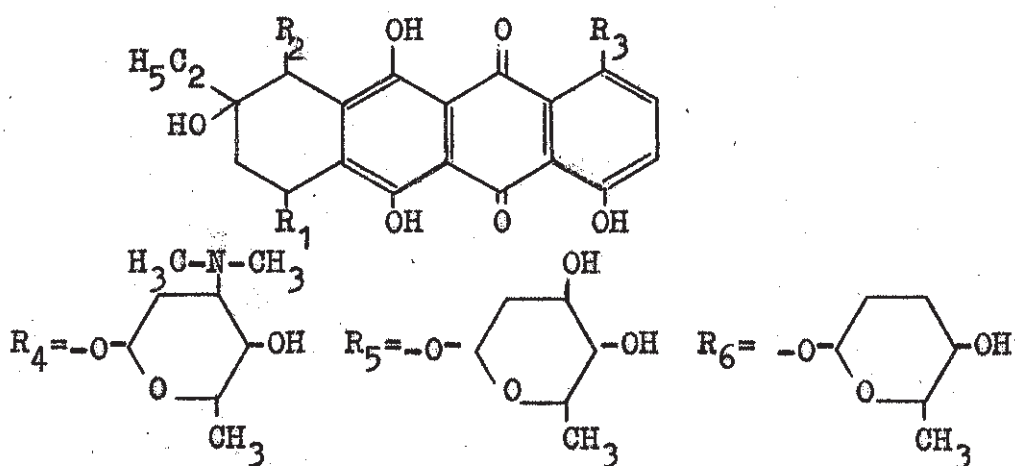
426

DaunomycinBacteriophyta

## Streptomycetaceae

## Streptomyces peucetius

361



	$R_1$	$R_2$	$R_3$
$\gamma$ -Rhodomycin-I	H oder $R_4$	$R_4$ oder H	H
$\beta$ -Rhodomycin-I	OH oder $R_4$	$R_4$ oder OH	H
$\gamma$ -Rhodomycin-II	H oder $R_4+R_4$	$R_4+R_4$ oder H	H
$\beta$ -Rhodomycin-II	OH oder $R_4+R_4$	$R_4+R_4$ oder OH	H
$\gamma$ -Rhodomycin-III	H oder $R_4+R_4+R_5$	$R_4+R_4+R_5$ oder H	H
Rhodomycin-Y	$R_4+R_5+R_6$	H	H
Rhodomycin-X	$R_4+R_5+R_6$	OH	H
$\gamma$ -Rhodomycin-IV	H oder $R_4+R_4+R_5+R_6$	$R_4+R_4+R_5+R_6$ oder H	H
$\beta$ -Iso-rhodomycin-II	$R_4$	$R_4$	OH



$\delta'$ -Rhodomycin-I/  $\delta'$ -Rhodomycin-II/  $\delta'$ -Rhodomycin-III/  $\delta'$ -Rhodomycin-IVBacteriophyta

## Streptomycetaceae

Streptomyces purpurascens

Kulturfl./Mycel

111, 119

 $\beta$ -Rhodomycin-IBacteriophyta

## Streptomycetaceae

Streptomyces purpurascens

111 - 114,  
117 $\beta$ -Rhodomycin-IIBacteriophyta

## Streptomycetaceae

Streptomyces purpurascens

111 - 114,  
117

Streptomyces purpurascens

Mycel

118

Rhodomycin-Y/Rhodomycin-XBacteriophyta

## Streptomycetaceae

Streptomyces sp., JA 8467

83

 $\beta$ -Iso-rhodomycin-IIBacteriophyta

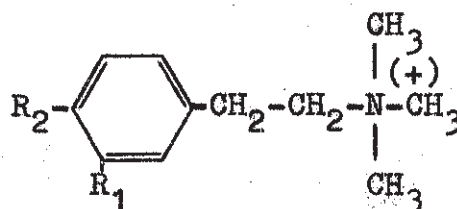
## Streptomycetaceae

Streptomyces purpurascens

117

Streptomyces sp.

120

Aromatische Ammoniumverbindungen

	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>
Phenylethyltrimethylammoniumsalz	H	H
Candicin	H	OH
Corynein	OH	OH
Salicifolin	OH	OCH <sub>3</sub>

PhenylethyltrimethylammoniumsalzAngiospermae (Monocotyledoneae)

## Orchidaceae

Eria jarensis		405
---------------	--	-----

CandicinAngiospermae (Dicotyledoneae)

## Cactaceae

Cereus aethiops		908
Gymnocalycium schickendantzii		908
Lophophora williamsii		698
Trichocereus candicans		877, 878, 880
Trichocereus chilensis		204
Trichocereus lamprochlorus		878, 880
Trichocereus spachianus		374
<u>Leguminosae</u>		
Acacia confusa		700
Acacia harpophylla		700
Acacia holoserica		700
Acacia maidenii		700
Desmodium cephalotes	Wurzel, stengelbürtig	333
Desmodium gangeticum	Wurzel, g.	325
Desmodium gangeticum	Wurzel	327
Desmodium gangeticum	Stiel + Blatt	326

## Magnoliaceae

Magnolia grandiflora	Wurzel	754
----------------------	--------	-----

## Rutaceae

Fagara chiloperone var. angustifolia		584
Fagara chiloperone var. angustifolia	Rinde	585
Fagara coco		584
Fagara coco	Rinde	585
Fagara hyemalis		584
Fagara hyemalis	Rinde	585
Fagara nigrescens		584
Fagara nigrescens	Rinde	585
Fagara pterota		584
Fagara pterota	Rinde	585
Fagara rhoifolia		584
Fagara rhoifolia	Rinde	585
Fagara rhoifolia var. petiolulatum		584
Fagara rhoifolia var. petiolulatum	Rinde	585
Phellodendron amurense		1137
Phellodendron amurense	Wurzelrinde	590
Phellodendron amurense var. japonicum		589
Zanthoxylum elephantiasis	Rinde	1145
Zanthoxylum martinicense	Rinde	41, 1144

Angiospermae (Monocotyledoneae)

## Gramineae

Hordeum vulgare	Keimwurzel	863
Hordeum vulgare, Sorte Peragis, mittelfrüh II, Wintergerste; Saale, Sommergerste	Keimwurzel	864
Hordeum sp.	Wurzel	620

CoryneinAngiospermae (Dicotyledoneae)

## Cactaceae

Cereus coryne		881
Stetsonia coryne		11, 878, 881

## Leguminosae

Alhagi pseudalhagi	Stengel/Wurzel	336
Desmodium triflorum	Wurzel	338

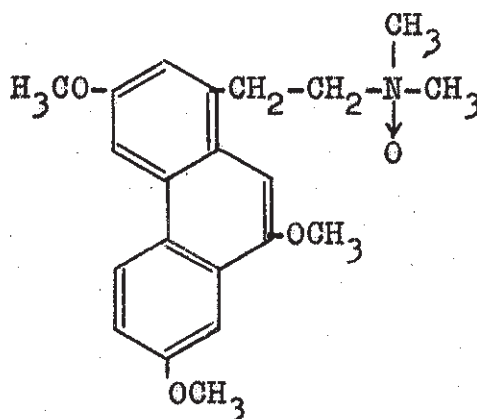
## Rutaceae

Fagara hyemalis		584
Fagara hyemalis	Rinde	585

SalicifolinAngiospermae (Dicotyledoneae)

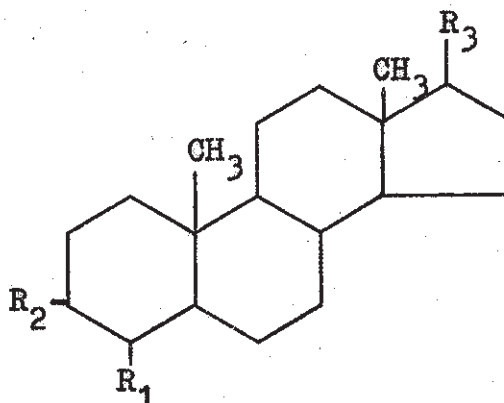
## Magnoliaceae

Magnolia acuminata	Stamm	490
Magnolia coco		1259
Magnolia grandiflora	Wurzel	754
Magnolia kobus	Rinde	1139
Magnolia kobus var. borealis	Rinde	761
Magnolia liliiflora	Rinde/Stamm/Wurzel	753
Magnolia salicifolia	Rinde	1138
Magnolia stellata	Rinde	1140
Michelia alba		1258

Aromatische AminoxideUvariopsamin-N-oxidAngiospermae (Dicotyledoneae)

## Annonaceae

Uvariopsis guineensis	Rinde	616
-----------------------	-------	-----

Steroidamine

	$R_1$	$R_2$	$R_3$
Funtuphyllamin-A	H	OH	$\text{CH}(\text{CH}_3)\text{NH}_2$
Funtuphyllamin-B	H	OH	$\text{CH}(\text{CH}_3)\text{NHCH}_3$
Funtuphyllamin-C	H	OH	$\text{CH}(\text{CH}_3)\text{N}(\text{CH}_3)_2$
Funtumaftrin-B	H	-O-	$\text{CH}(\text{CH}_3)\text{NHCH}_3$
Funtumaftrin-C	H	-O-	$\text{CH}(\text{CH}_3)\text{N}(\text{CH}_3)_2$
Terminalin	OH	OH	$\text{CH}(\text{CH}_3)\text{N}(\text{CH}_3)_2$
Funtumidin	H	$\text{NH}_2$	$\text{CH}(\text{OH})\text{CH}_3$
Chonemorphin	H	$\text{NH}_2$	$\text{CH}(\text{OH}_3)\text{N}(\text{CH}_3)_2$
Dictyodiamin	H	$\text{NHCH}_3$	$\text{CH}(\text{CH}_3)\text{NHCH}_3$
Pachysamin-A	H	$\text{NHCH}_3$ ( $\alpha$ )	$\text{CH}(\text{CH}_3)\text{N}(\text{CH}_3)_2$
Dictyophlebin	H	$\text{NHCH}_3$ ( $\beta$ )	$\text{CH}(\text{CH}_3)\text{N}(\text{CH}_3)_2$
Pachysandrin-C	OH	$\text{NHCH}_3$	$\text{CH}(\text{CH}_3)\text{N}(\text{CH}_3)_2$
Pachysandrin-D	$\text{OCOCH}=\text{C}(\text{CH}_3)_2$	$\text{NHCH}_3$	$\text{CH}(\text{CH}_3)\text{N}(\text{CH}_3)_2$
Epipachysamin-F	H	$\text{N}(\text{CH}_3)_2$	$\text{CH}(\text{CH}_3)\text{NH}_2$
Desacyl-epipachysamin-A	H	$\text{N}(\text{CH}_3)_2$	$\text{CH}(\text{CH}_3)\text{NHCH}_3$
Dihydrokurchessin	H	$\text{N}(\text{CH}_3)_2$	$\text{CH}(\text{CH}_3)\text{N}(\text{CH}_3)_2$

Funtuphyllamin-AAngiospermae (Dicotyledoneae)

## Apocynaceae

Funtumia africana

Blatt

468, 521

Funtuphyllamin-BAngiospermae (Dicotyledoneae)

## Apocynaceae

Funtumia africana	Blatt	468, 521
Malouetia bequaertiana		526
Malouetia bequaertiana	Blatt/Stammrinde/ Wurzelrinde	471
Malouetia glandulifera		773

Funtuphyllamin-CAngiospermae (Dicotyledoneae)

## Apocynaceae

Funtumia africana	Blatt	468, 521
Malouetia bequaertiana		526

Funtumafirin-BAngiospermae (Dicotyledoneae)

## Apocynaceae

Funtumia africana	Blatt	468
-------------------	-------	-----

Funtumafirin-CAngiospermae (Dicotyledoneae)

## Apocynaceae

Chonemorpha macrophylla	Wurzelrinde	172
Funtumia africana	Blatt	468
Funtumia latifolia	Rinde	470
Malouetia bequaertiana	Wurzel/Rinde	525
Malouetia brachyloba	Blatt	519
Malouetia glandulifera		773

TerminalinAngiospermae (Dicotyledoneae)

## Buxaceae

Pachysandra terminales		532, 534, 1136
------------------------	--	-------------------

Pachysandrin-C/Desacyl-epipachysamin-AAngiospermae (Dicotyledoneae)

## Buxaceae

Pachysandra terminales		1136
------------------------	--	------

FuntumidinAngiospermae (Dicotyledoneae)

## Apocynaceae

Funtumia latifolia	Blatt	467
--------------------	-------	-----

ChonemorphinAngiospermae (Dicotyledoneae)

## Apocynaceae

Chonemorpha macrophylla		173
Chonemorpha macrophylla	Wurzelrinde	226
Chonemorpha penangensis		173, 174

Dictyophleba lucida		477
Funtumia latifolia		524
Malouetia bequaertiana		526

DictyodiaminAngiospermae (Dicotyledoneae)

## Apocynaceae

Dictyophleba lucida		477
Dictyophleba lucida	Wurzel	523

## Buxaceae

Pachysandra terminales		532
------------------------	--	-----

Pachysamin-AAngiospermae (Dicotyledoneae)

## Buxaceae

Pachysandra terminalis		534, 1136, 1142
------------------------	--	--------------------

DictyophlebinAngiospermae (Dicotyledoneae)

## Apocynaceae

Dictyophleba lucida		477
Dictyophleba lucida	Wurzel	523
Dictyophleba lucida	Wurzelrinde	724
Funtumia latifolia		524

Pachysandrin-DAngiospermae (Dicotyledoneae)

## Buxaceae

Pachysandra terminales		534, 1136
------------------------	--	-----------

Epipachysamin-FAngiospermae (Dicotyledoneae)

## Buxaceae

Pachysandra terminales		533
------------------------	--	-----

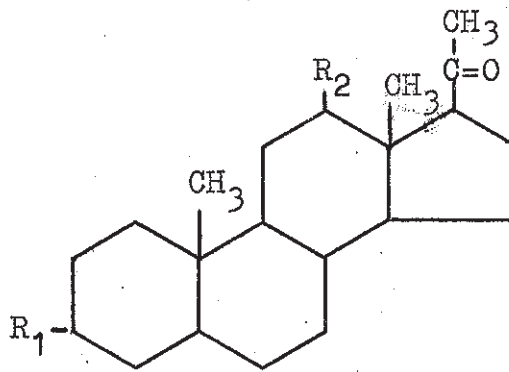
DihydrokurchessinAngiospermae (Dicotyledoneae)

## Apocynaceae

Malouetia tamaquarina		1053
-----------------------	--	------

## Buxaceae

Pachysandra terminales		556
------------------------	--	-----



	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>
Funtumin	NH <sub>2</sub> (α)	H
Dihydroholaphyllamin	NH <sub>2</sub> (β)	H
Bokitamin	NH <sub>2</sub>	OH
N-Methylfuntumin	NHCH <sub>3</sub>	H
N,N-Dimethylfuntumin	N(CH <sub>3</sub> ) <sub>2</sub>	H

Funtumin

Angiospermae (Dicotyledoneae)

Apocynaceae

Funtumia latifolia	Blatt	467
Holarrhena febrifuga	Blatt	216
Holarrhena sp.	Blatt	768

Dihydroholaphyllamin

Angiospermae (Dicotyledoneae)

Apocynaceae

Holarrhena floribunda	Blatt	618
-----------------------	-------	-----

Bokitamin

Angiospermae (Dicotyledoneae)

Apocynaceae

Holarrhena sp.	Blatt	768
----------------	-------	-----

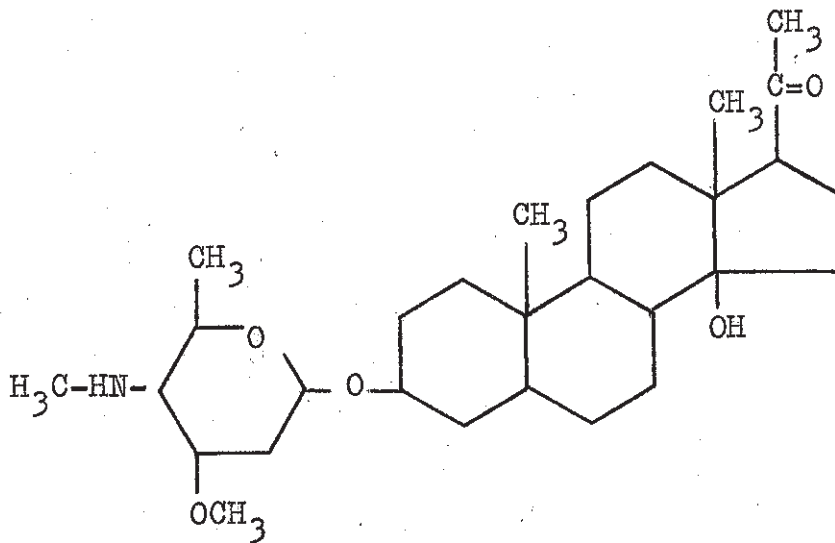
N-Methylfuntumin/N,N-Dimethylfuntumin

Angiospermae (Dicotyledoneae)

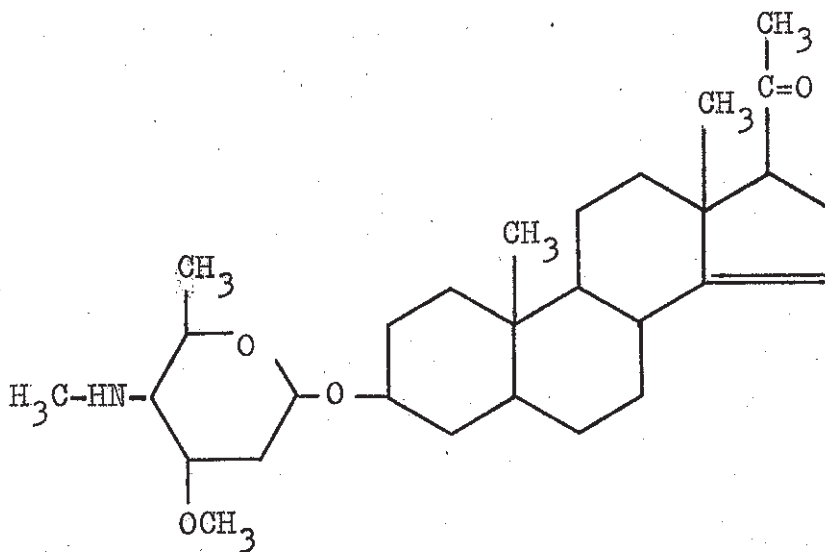
Apocynaceae

Holarrhena febrifuga	Blatt	216
----------------------	-------	-----





Holacurtin



Holacurtenin

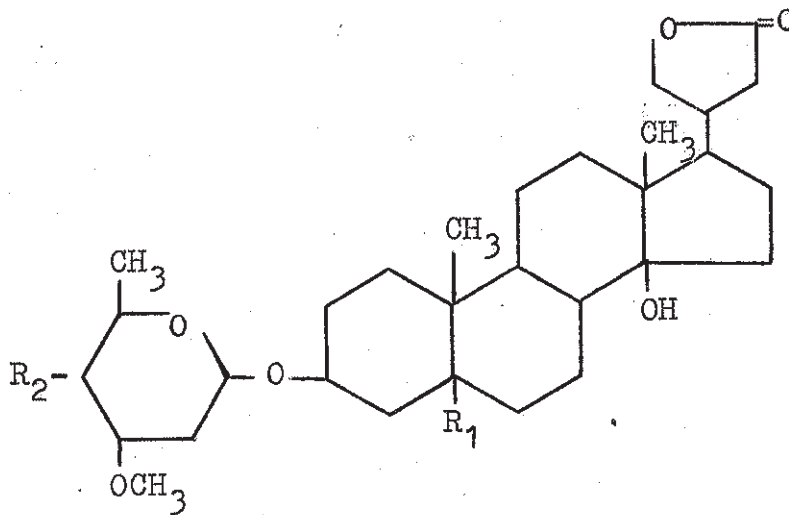
Holacurtin/HolacurteninAngiospermae (Dicotyledoneae)

Apocynaceae

Holarrhena curtisii

Blatt

466



	$R_1$	$R_2$
Holarosin-A	H ( $\beta$ )	NH <sub>2</sub>
N-Demethyl-mitiphyllin	H ( $\alpha$ )	NH <sub>2</sub>
Mitiphyllin	H ( $\beta$ )	NHCH <sub>3</sub>

Holarosin-A

Angiospermae (Dicotyledoneae)

Apocynaceae

Holarrhena antidysenterica      Blatt      522

N-Demethyl-mitiphyllin

Angiospermae (Dicotyledoneae)

Apocynaceae

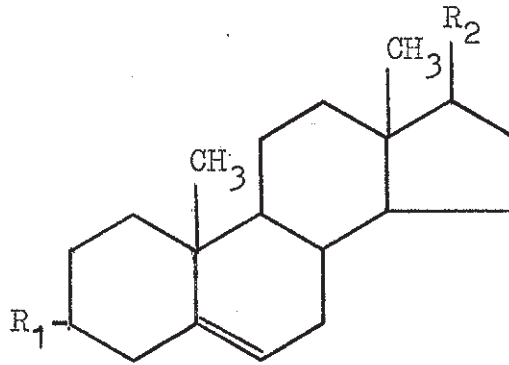
Holarrhena mitis      Blatt      619

Mitiphyllin

Angiospermae (Dicotyledoneae)

Apocynaceae

Holarrhena mitis      Blatt      472, 619



	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>
Holafebrin	OH	CH(CH <sub>3</sub> )NH <sub>2</sub>
Irehamin	OH	CH(CH <sub>3</sub> )NHCH <sub>3</sub>
Buxomegin (Irehin)	OH	CH(CH <sub>3</sub> )N(CH <sub>3</sub> ) <sub>2</sub>
Sarcococca-Alkaloid-C	OCH <sub>3</sub>	CH(CH <sub>3</sub> )N(CH <sub>3</sub> ) <sub>2</sub>
Holamin	NH <sub>2</sub> (α)	COCH <sub>3</sub>
Holaphyllamin	NH <sub>2</sub> (β)	COCH <sub>3</sub>
Holaminol	NH <sub>2</sub>	CH(CH <sub>3</sub> )OH
Irehdiamin-A	NH <sub>2</sub>	CH(CH <sub>3</sub> )NH <sub>2</sub>
Holaphyllin	NHCH <sub>3</sub>	COCH <sub>3</sub>
Holaphyllidin	NHCH <sub>3</sub>	CH(CH <sub>3</sub> )OH (20α)
Holaphyllinol	NHCH <sub>3</sub>	CH(CH <sub>3</sub> )OH (20β)
Irehdiamin-B	NHCH <sub>3</sub>	CH(CH <sub>3</sub> )NH <sub>2</sub>
Methylholaphyllin	N(CH <sub>3</sub> ) <sub>2</sub>	COCH <sub>3</sub>
Holarrhena-Alkaloid-C	N(CH <sub>3</sub> ) <sub>2</sub> (α)	CH(CH <sub>3</sub> )N(CH <sub>3</sub> ) <sub>2</sub>
Kurchessin	N(CH <sub>3</sub> ) <sub>2</sub> (β)	CH(CH <sub>3</sub> )N(CH <sub>3</sub> ) <sub>2</sub>

### Holafebrin

#### Angiospermae (Dicotyledoneae)

##### Apocynaceae

Funtumia latifolia	Rinde	470
Holarrhena febrifuga	Rinde	215, 478
Holarrhena mitis	Rinde	1203
Kibatalia arborea	Rinde	478

### Irehamin

#### Angiospermae (Dicotyledoneae)

##### Apocynaceae

Dictyophleba lucida		477
Funtumia elastica	Blatt	521, 1156
Funtumia latifolia	Rinde	470

BuxomeginAngiospermae (Dicotyledoneae)

## Apocynaceae

Dictyophleba lucida

477

Dictyophleba lucida

Wurzelrinde

724

Funtumia elastica

Blatt

521, 1156

## Buxaceae

Buxus sempervirens

1147

Buxus sempervirens var.

suffruticosa

Blatt

1194

Sarcococca-Alkaloid-CAngiospermae (Dicotyledoneae)

## Buxaceae

Sarcococca pruniformis

Blatt

563

HolaminAngiospermae (Dicotyledoneae)

## Apocynaceae

Holarrhena febrifuga

Blatt

216

Holarrhena floribunda

Blatt

165, 464

Holarrhena sp.

Blatt

768

HolaphyllaminAngiospermae (Dicotyledoneae)

## Apocynaceae

Holarrhena floribunda

Blatt

165, 463

HolaminolAngiospermae (Dicotyledoneae)

## Apocynaceae

Holarrhena febrifuga

Rinde

215

Irehdiamin-AAngiospermae (Dicotyledoneae)

## Apocynaceae

Funtumia elastica

Blatt

1155

Holarrhena floribunda

Rinde

465

HolaphyllinAngiospermae (Dicotyledoneae)

## Apocynaceae

Holarrhena febrifuga

Rinde

215

Holarrhena febrifuga

Blatt

216

Holarrhena floribunda

Blatt

165, 463

Holaphyllidin/HolaphyllinolAngiospermae (Dicotyledoneae)

## Apocynaceae

Holarrhena floribunda	Blatt	618
-----------------------	-------	-----

Irehdiamin-BAngiospermae (Dicotyledoneae)

## Apocynaceae

Funtumia elastica	Blatt	1155
-------------------	-------	------

MethylholaphyllinAngiospermae (Dicotyledoneae)

## Apocynaceae

Holarrhena febrifuga	Blatt	216
Holarrhena floribunda	Blatt	618

Holarrhena-Alkaloid-CAngiospermae (Dicotyledoneae)

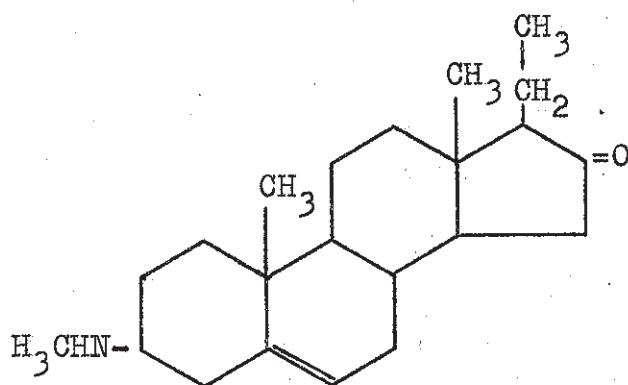
## Apocynaceae

Holarrhena antidysenterica	Rinde	609
----------------------------	-------	-----

KurchessinAngiospermae (Dicotyledoneae)

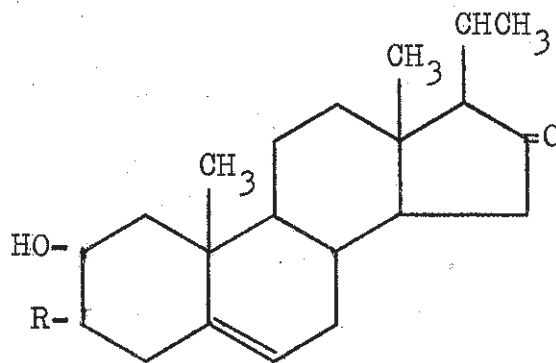
## Apocynaceae

Holarrhena antidysenterica	Rinde	609
Malouetia tamaquarina		1053

HoladysinAngiospermae (Dicotyledoneae)

## Apocynaceae

Holarrhena antidysenterica		352
Holarrhena antidysenterica	Blatt	473



Kurchiphyllamin

RNHCH<sub>3</sub>

Kurchiphyllin

N(CH<sub>3</sub>)<sub>2</sub>Kurchiphyllamin/KurchiphyllinAngiospermae (Dicotyledoneae)

## Apocynaceae

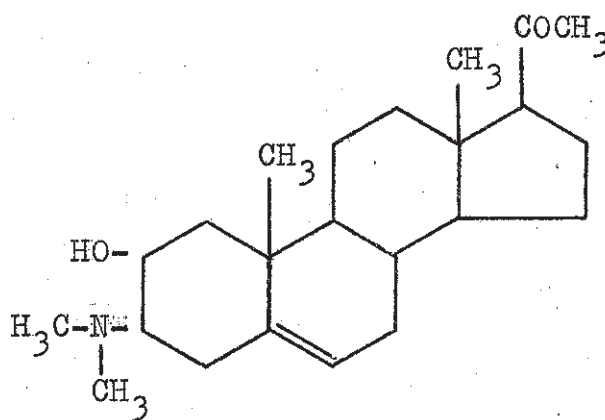
Holarrhena antidysenterica

343

Holarrhena antidysenterica

Blatt

473

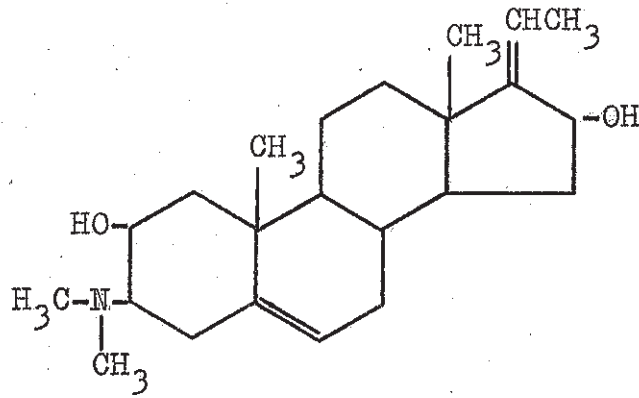
KurchilinAngiospermae (Dicotyledoneae)

## Apocynaceae

Holarrhena antidysenterica

Blatt

473

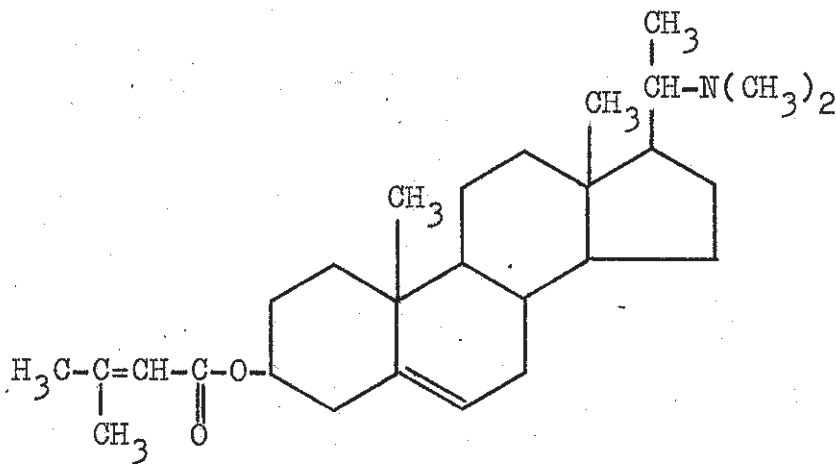
KurchalinAngiospermae (Dicotyledoneae)

Apocynaceae

*Holarrhena antidysenterica*

Blatt

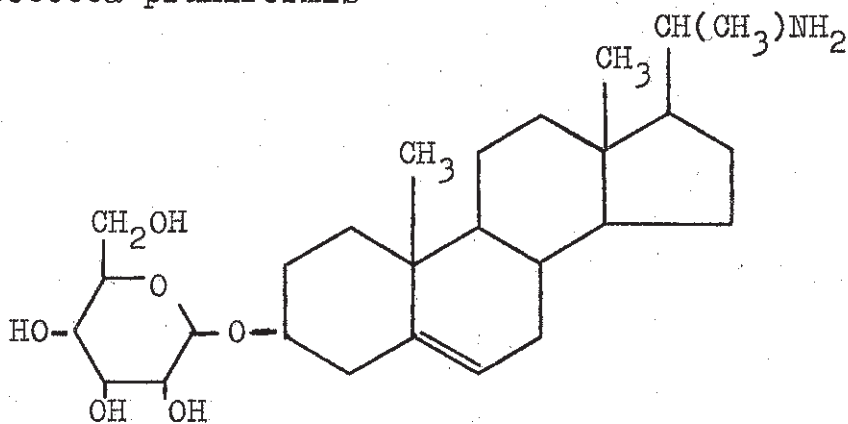
475

Sarcococca-Alkaloid-BAngiospermae (Dicotyledoneae)

Buxaceae

*Sarcococca pruniformis*

175

Holafebrin-O-glucosidAngiospermae (Dicotyledoneae)

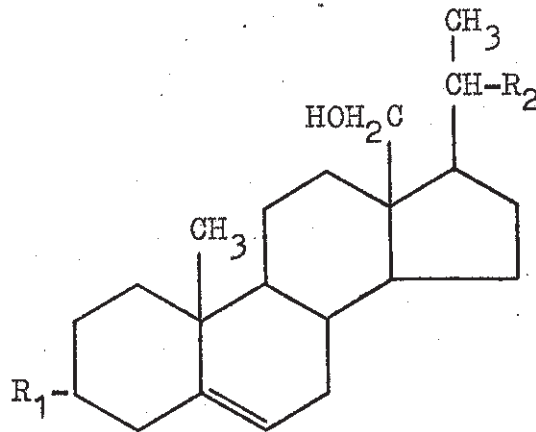
Apocynaceae

*Conopharyngia pachysiphon*

Wurzel

236, 656





	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>
Holarrhidin	NH <sub>2</sub> ( $\alpha$ )	NH <sub>2</sub>
Holarrhimin	NH <sub>2</sub> ( $\beta$ )	NH <sub>2</sub>
N <sup>20</sup> -Methylholarrhimin	NH <sub>2</sub>	NHCH <sub>3</sub>
N <sup>3</sup> -Methylholarrhimin	NHCH <sub>3</sub>	NH <sub>2</sub>
Tetramethylholarrhidin	N(CH <sub>3</sub> ) <sub>2</sub> ( $\alpha$ )	N(CH <sub>3</sub> ) <sub>2</sub>
Tetramethylholarrhimin	N(CH <sub>3</sub> ) <sub>2</sub> ( $\beta$ )	N(CH <sub>3</sub> ) <sub>2</sub>

Holarrhidin

Angiospermae (Dicotyledoneae)

Apocynaceae

Holarrhena antidysenterica	Rinde, g.	608
----------------------------	-----------	-----

Holarrhimin

Angiospermae (Dicotyledoneae)

Apocynaceae

Elytropus chilensis	Blatt/Wurzel/Stamm	439, 1185
Holarrhena antidysenterica	Rinde, g.	608
Holarrhena antidysenterica	Rinde	341, 1028, 1029, 1030, 1031, 1159
Holarrhena febrifuga	Rinde	215
Holarrhena floribunda	Stammrinde	807
Holarrhena floribunda	Rinde	967
Holarrhena mitis	Rinde	1203
Holarrhena sp.		77

N<sup>20</sup>-Methylholarrhimin

Angiospermae (Dicotyledoneae)

Apocynaceae

Holarrhena antidysenterica	Rinde	1159
----------------------------	-------	------

N<sup>3</sup>-MethylholarrhiminAngiospermae (Dicotyledoneae)

## Apocynaceae

Holarrhena antidysenterica	Rinde	1159
Holarrhena mitis	Rinde	1203

TetramethylholarrhidinAngiospermae (Dicotyledoneae)

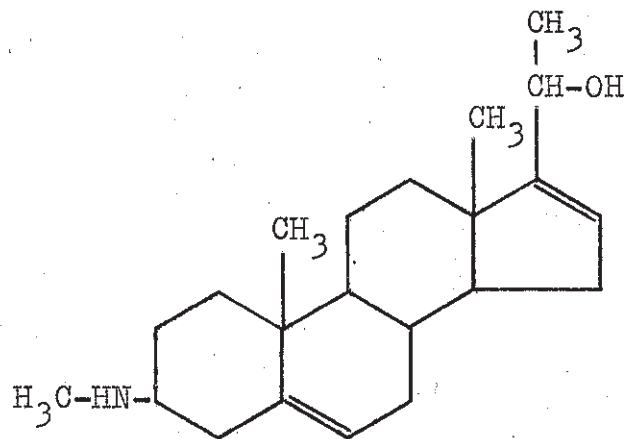
## Apocynaceae

Holarrhena antidysenterica		1158
----------------------------	--	------

TetramethylholarrhiminAngiospermae (Dicotyledoneae)

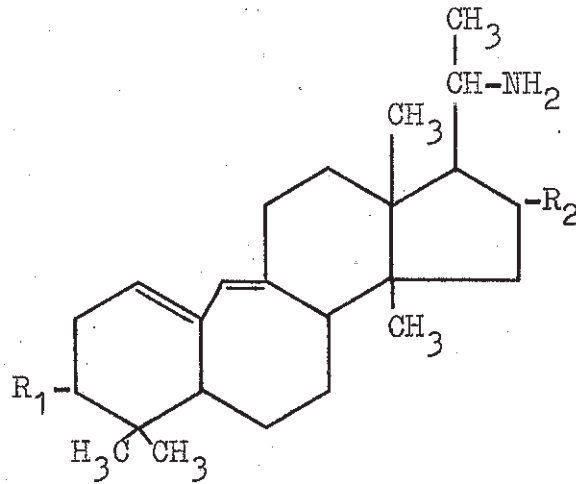
## Apocynaceae

Holarrhena antidysenterica		1158
Holarrhena antidysenterica	Rinde, g.	608
Holarrhena antidysenterica	Rinde	1159
Malouetia tamaquarina		1053

HoladysaminAngiospermae (Dicotyledoneae)

## Apocynaceae

Holarrhena antidysenterica		474
Holarrhena antidysenterica	Blatt	473



	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>
Norbuxamin (Buxenin-G)	NHCH <sub>3</sub>	H
Buxamin-E	N(CH <sub>3</sub> ) <sub>2</sub>	H
Buxaminol-E	N(CH <sub>3</sub> ) <sub>2</sub>	OH

Norbuxamin

Angiospermae (Dicotyledoneae)

Buxaceae

Buxus sempervirens		36, 598, 600
Buxus sempervirens	Blatt	1060

Buxamin-E

Angiospermae (Dicotyledoneae)

Buxaceae

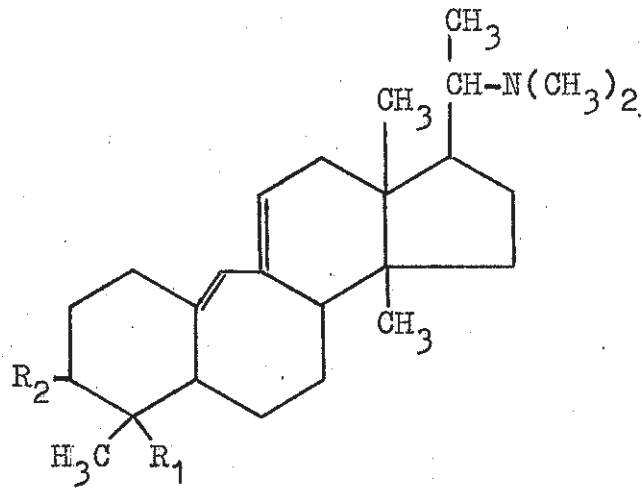
Buxus balearica	Blatt	517
Buxus microphylla var. sinica	Blatt	65
Buxus sempervirens	Blatt	1060
Buxus sp.	Blatt	146

Buxaminol-E

Angiospermae (Dicotyledoneae)

Buxaceae

Buxus balearica	Blatt	517
Buxus microphylla var. sinica	Blatt	65
Buxus sempervirens	Blatt	1060



	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>
Buxamin-C	CH <sub>3</sub>	NHCH <sub>3</sub>
Buxamin-A	CH <sub>3</sub>	N(CH <sub>3</sub> ) <sub>2</sub>
Desoxy-16-buxidienin-C	CH <sub>2</sub> OH	NHCH <sub>3</sub>

Buxamin-C

Angiospermae (Dicotyledoneae)

Buxaceae

*Buxus papillosa*

712

Buxamin-A

Angiospermae (Dicotyledoneae)

Buxaceae

*Buxus madagascariensis* ssp.  
*xerophila* f. *salicicola*

Stammrinde +  
Wurzelrinde

520

Desoxy-16-buxidienin-C

Angiospermae (Dicotyledoneae)

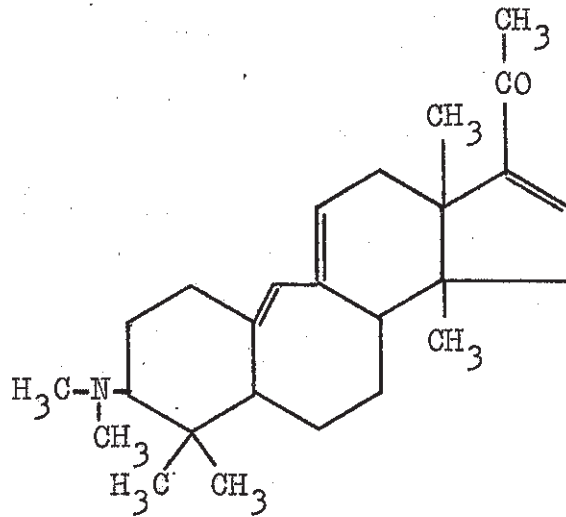
Buxaceae

*Buxus madagascariensis* ssp.  
*xerophila* f. *salicicola*

Stammrinde +  
Wurzelrinde

520  
712

*Buxus papillosa*

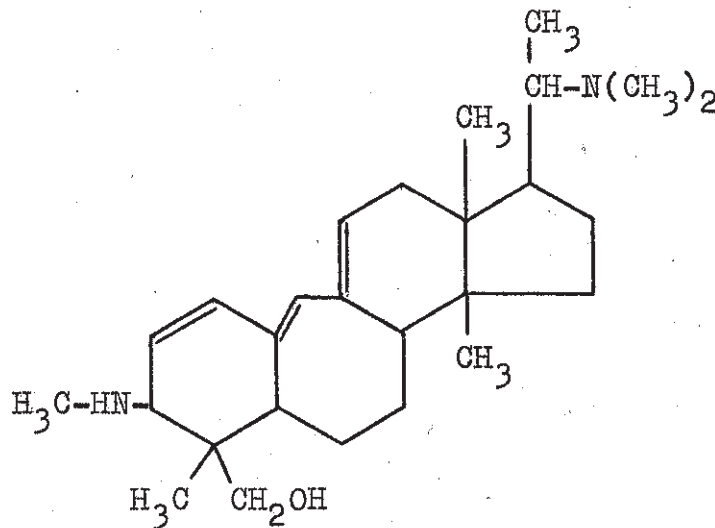


Buxpsiin

Angiospermae (Dicotyledoneae)

Buxaceae

Buxus sempervirens		1146
Buxus sempervirens	oberird. Teile	244
Buxus sempervirens var. suffruticosa	Blatt	1194

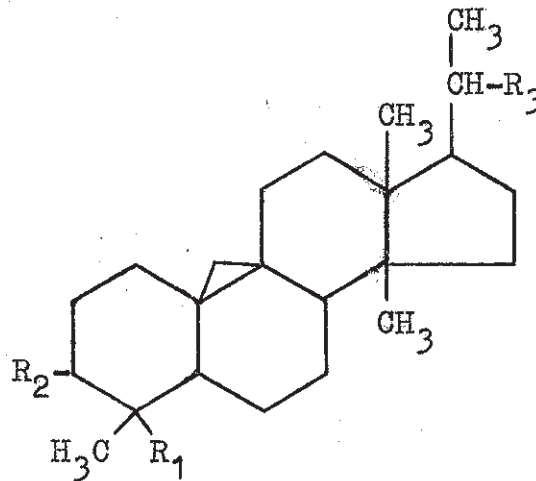


Buxitrienin-C

Angiospermae (Dicotyledoneae)

Buxaceae

Buxus madagascariensis ssp. xerophila f. salicicola	Stammrinde + Wurzelrinde	520
--	-----------------------------	-----



	$R_1$	$R_2$	$R_3$
Buxocyclamin-A	H	$N(CH_3)_2$	$N(CH_3)_2$
Cycloprotobuxin-F	$CH_3$	$NH_2$	$N(CH_3)_2$
Cycloprotobuxin-D	$CH_3$	$NHCH_3$	$NHCH_3$
Cycloprotobuxin-C	$CH_3$	$NHCH_3$	$N(CH_3)_2$
Cycloprotobuxin-A	$CH_3$	$N(CH_3)_2$	$N(CH_3)_2$
Cyclopapilosin-D	$CH_2OH$	$NHCH_3$	$NHCH_3$

Buxocyclamin-A

Angiospermae (Dicotyledoneae)

Buxaceae

Buxus sempervirens

245

Cycloprotobuxin-F

Angiospermae (Dicotyledoneae)

Buxaceae

Buxus madagascariensis ssp.  
xerophila f. salicicola

Stammrinde +  
Wurzelrinde

520

Cycloprotobuxin-D

Angiospermae (Dicotyledoneae)

Buxaceae

Buxus balearica  
Buxus sempervirens

Blatt

517

600

Cycloprotobuxin-C

Angiospermae (Dicotyledoneae)

Buxaceae

Buxus balearica  
Buxus balearica  
Buxus koreana

Blatt

Blatt + Stengel

416

417, 517

760

<i>Buxus madagascariensis</i> ssp. <i>xerophila</i> f. <i>salicicola</i>	Stammrinde + Wurzelrinde	520
<i>Buxus malayana</i>	Blatt	518
<i>Buxus microphylla</i> var. <i>suffruticosa</i> f. <i>major</i>		755
<i>Buxus microphylla</i> var. <i>suffruticosa</i> f. <i>major</i>	Blatt + Zweig	756
<i>Buxus sempervirens</i>		376, 600, 955
<i>Buxus sempervirens</i>	Blatt	147, 956
<i>Buxus wallichiana</i>	Blatt	139, 1183

Cycloprotobuxin-A

Angiospermae (Dicotyledoneae)

Buxaceae

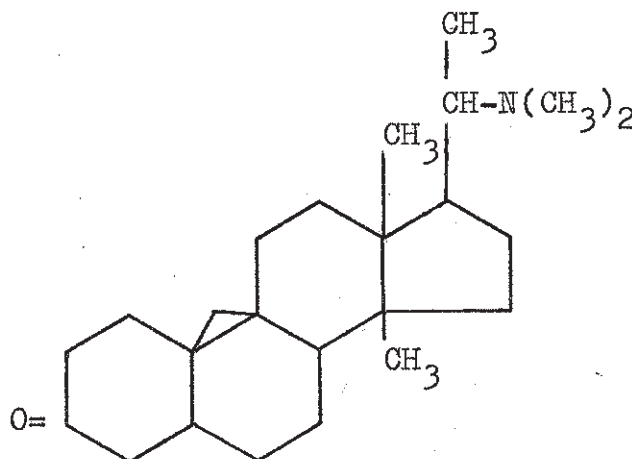
<i>Buxus balearica</i>	Blatt	417, 517
<i>Buxus koreana</i>	Blatt + Stengel	760
<i>Buxus malayana</i>	Blatt	527

Cyclopapilosin-D

Angiospermae (Dicotyledoneae)

Buxaceae

<i>Buxus papillosa</i>		712
------------------------	--	-----



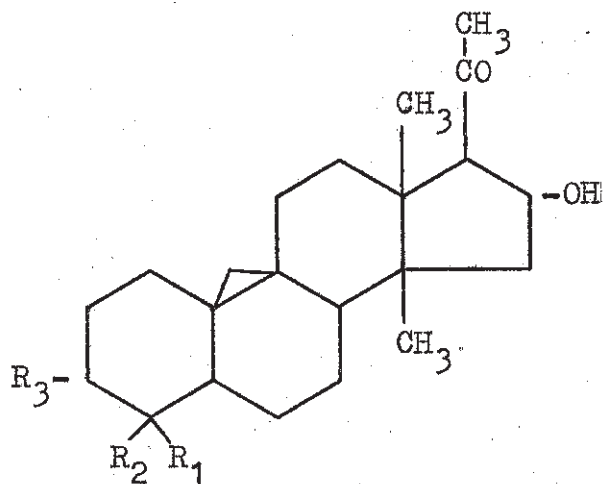
Buxandonin

Angiospermae (Dicotyledoneae)

Buxaceae

<i>Buxus sempervirens</i>		242
---------------------------	--	-----





	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>
Cyclorolfein	CH <sub>3</sub>	CH <sub>3</sub>	NHCH <sub>3</sub>
Buxtauin		-CH <sub>2</sub> -	NHCH <sub>3</sub>
Cyclomicrobuxin		-CH <sub>2</sub> -	N(CH <sub>3</sub> ) <sub>2</sub>

### Cyclorolfein

#### Angiospermae (Dicotyledoneae)

##### Buxaceae

*Buxus rolfei* Blatt 528

### Buxtauin

#### Angiospermae (Dicotyledoneae)

##### Buxaceae

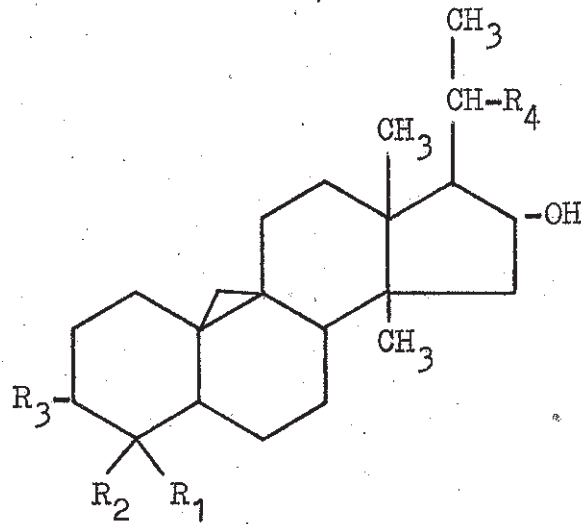
*Buxus microphylla* var. *sinica* Blatt 65  
*Buxus microphylla* var. *suffruticosa* 756  
*Buxus sempervirens* 597, 1147  
*Buxus sempervirens* var. *suffruticosa* Blatt 1194  
*Buxus wallichiana* Blatt 139, 1183  
*Buxus* sp. 1143

### Cyclomicrobuxin

#### Angiospermae (Dicotyledoneae)

##### Buxaceae

*Buxus microphylla* var. *sinica* Blatt 65  
*Buxus microphylla* var. *suffruticosa* 756  
*Buxus microphylla* var. *suffruticosa* Blatt + Zweig 758, 759  
*Buxus sempervirens* 1147  
*Buxus sempervirens* var. *suffruticosa* Blatt 1194  
*Buxus wallichiana* Blatt 1183  
*Buxus* sp. 1143



	$R_1$	$R_2$	$R_3$	$R_4$
Cyclobuxamin	$CH_3$	H	$NH_2$	$NHCH_3$
Cyclovirobuxin-D	$CH_3$	$CH_3$	$NHCH_3$	$NHCH_3$
Cyclovirobuxin-C	$CH_3$	$CH_3$	$NHCH_3$	$N(CH_3)$
Cyclovirobuxin-B	$CH_3$	$CH_3$	$N(CH_3)_2$	$NHCH_3$
Cyclovirobuxin-A	$CH_3$	$CH_3$	$N(CH_3)_2$	$N(CH_3)$
Dihydro-cyclomicrophyllin-F	$CH_2OH$	$CH_3$	$NHCH_3$	$NHCH_3$
Cyclorolfeibuxin-C	$CH_2OH$	$CH_3$	$NHCH_3$	$N(CH_3)$
Dihydro-cyclomicrophyllin-A	$CH_2OH$	$CH_3$	$N(CH_3)_2$	$N(CH_3)$
Cyclobuxin-D		$-CH_2-$	$NHCH_3$	$NHCH_3$
Cyclobuxin-B		$-CH_2-$	$N(CH_3)_2$	$NHCH_3$

Cyclobuxamin

Angiospermae (Dicotyledoneae)

Buxaceae

Buxus sempervirens

Blatt

129

Cyclovirobuxin-D

Angiospermae (Dicotyledoneae)

Buxaceae

Buxus malayana

Rinde + Stamm + Ast

518

Buxus malayana

Blatt

527

Buxus microphylla var. sinica

Blatt

65

Buxus sempervirens

128, 600,  
1147

Buxus sempervirens var.  
suffrutcosa

Blatt

1194

Buxus wallichiana

Blatt

139, 1183

Cyclovirobuxin-CAngiospermae (Dicotyledoneae)

## Buxaceae

Buxus malayana

Blatt

518

Cyclovirobuxin-B/Cyclovirobuxin-AAngiospermae (Dicotyledoneae)

## Buxaceae

Buxus malayana

527

Dihydro-cyclomicrophyllin-F/Dihydro-cyclomicrophyllin-AAngiospermae (Dicotyledoneae)

## Buxaceae

Buxus microphylla var.  
suffruticosa

Blatt + Zweig

758

Cyclorolfeibuxin-CAngiospermae (Dicotyledoneae)

## Buxaceae

Buxus rolfei

Blatt

528

Cyclobuxin-DAngiospermae (Dicotyledoneae)

## Buxaceae

Buxus koreana

Blatt + Stengel

760

Buxus sempervirens

127, 128,

600, 1147

Buxus sempervirens

Blatt

129, 515,

796, 956

Buxus sempervirens

Zweig

515

Buxus sempervirens var.  
suffruticosa

Blatt

1194

Buxus wallichiana

Blatt

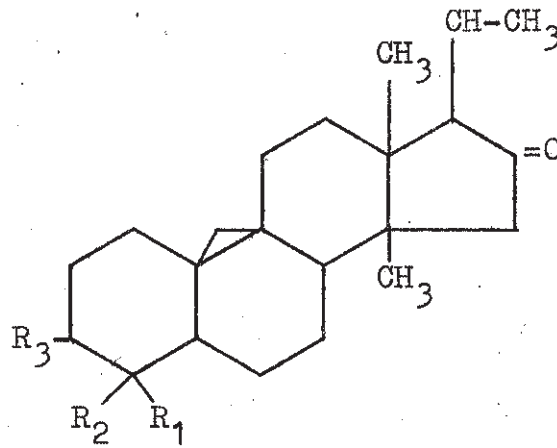
139, 1183

Cyclobuxin-BAngiospermae (Dicotyledoneae)

## Buxaceae

Buxus sempervirens

1193



	$R_1$	$R_2$	$R_3$
Cyclobuxosuffrin	$CH_3$	H	$N(CH_3)_2$
Cyclobuxophyllinin (Buxenon)	$CH_3$	$CH_3$	$NHCH_3$
Cyclobuxophyllin	$CH_3$	$CH_3$	$N(CH_3)_2$
Cyclosuffrobuxinin		$-CH_2-$	$NHCH_3$
Cyclosuffrobuxin		$-CH_2-$	$N(CH_3)_2$

Cyclobuxosuffrin/Cyclosuffrobuxin

Angiospermae (Dicotyledoneae)

Buxaceae

Buxus koreana	Blatt + Stengel	760
Buxus microphylla var. suffruticosa f. major	Blatt + Zweig	759

Cyclobuxophyllinin

Angiospermae (Dicotyledoneae)

Buxaceae

Buxus malayana	Stamm + Rinde + Ast	518
Buxus microphylla var. suffruticosa f. major	Blatt + Zweig	759
Buxus sempervirens		243

Cyclobuxophyllin

Angiospermae (Dicotyledoneae)

Buxaceae

Buxus microphylla var. suffruticosa f. major	Blatt + Zweig	759
---	---------------	-----

Cyclosuffrobuxinin

Angiospermae (Dicotyledoneae)

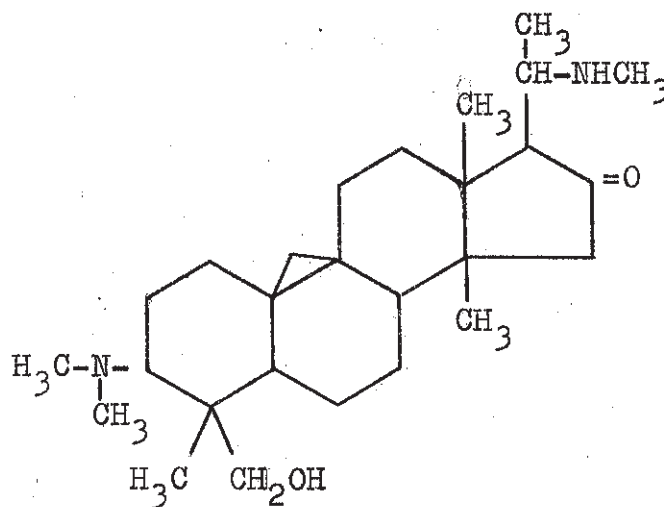
Buxaceae

Buxus koreana	Blatt + Stengel	760
---------------	-----------------	-----

Buxus microphylla var.  
suffruticosa f. major  
Buxus sempervirens

Blatt + Zweig

759  
1192

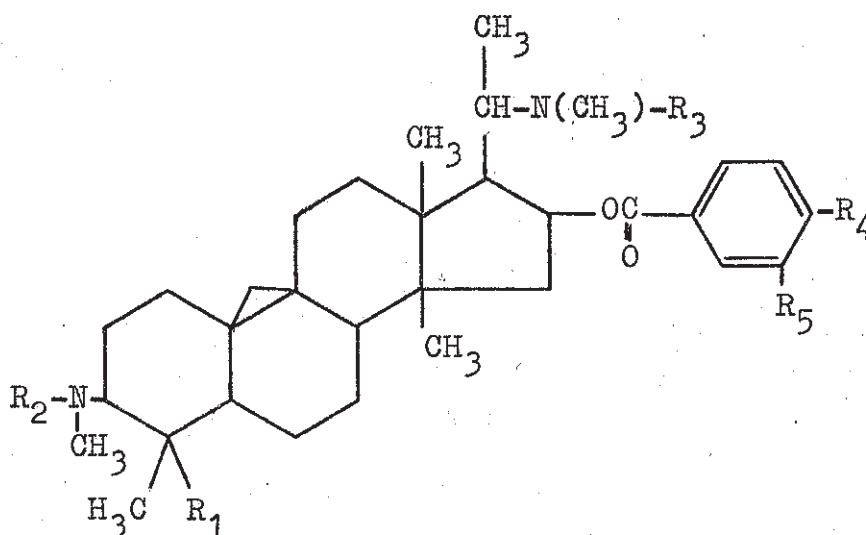
Buxazidin-BAngiospermae (Dicotyledoneae)

Buxaceae

Buxus sempervirens

Blatt

246



	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	R <sub>4</sub>	R <sub>5</sub>
O-Vanilloyl-cyclovirobuxein-D	CH <sub>3</sub>	H	H	OH	OCH <sub>3</sub>
Dihydrocyclomicrophyllidin-A	CH <sub>2</sub> OH	CH <sub>3</sub>	CH <sub>3</sub>	H	H

O-Vanilloyl-cyclovirobuxein-DAngiospermae (Dicotyledoneae)

Buxaceae

*Buxus malayana*

Rinde + Stamm + Ast

518

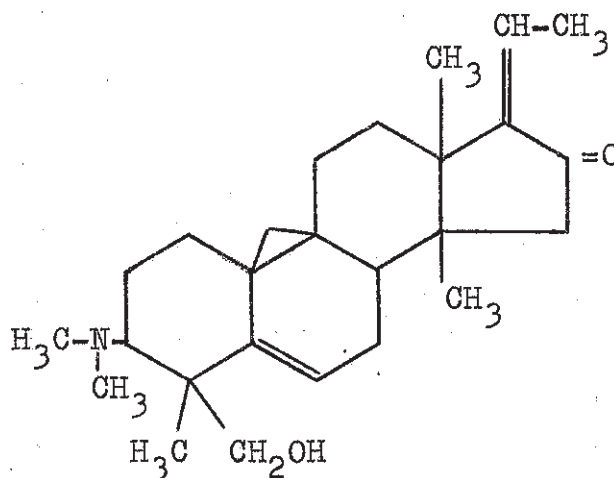
Dihydrocyclomicrophyllidin-AAngiospermae (Dicotyledoneae)

Buxaceae

*Buxus microphylla* var.  
*suffruticosa*

Blatt + Zweig

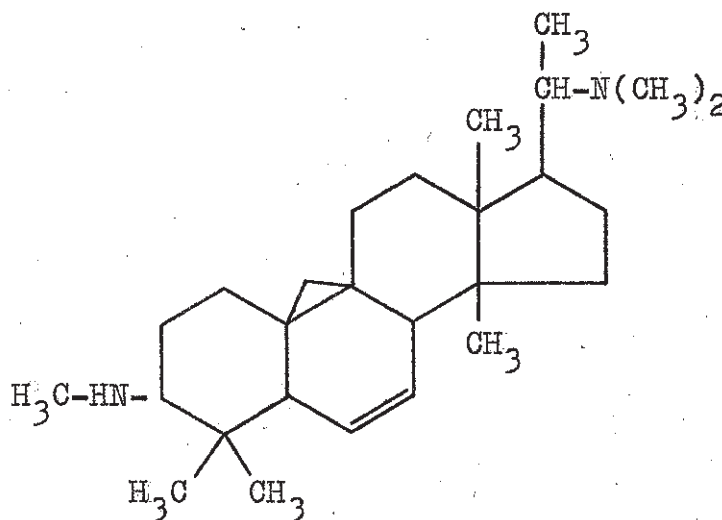
758

BuxocyclinAngiospermae (Dicotyledoneae)

Buxaceae

*Buxus sempervirens*

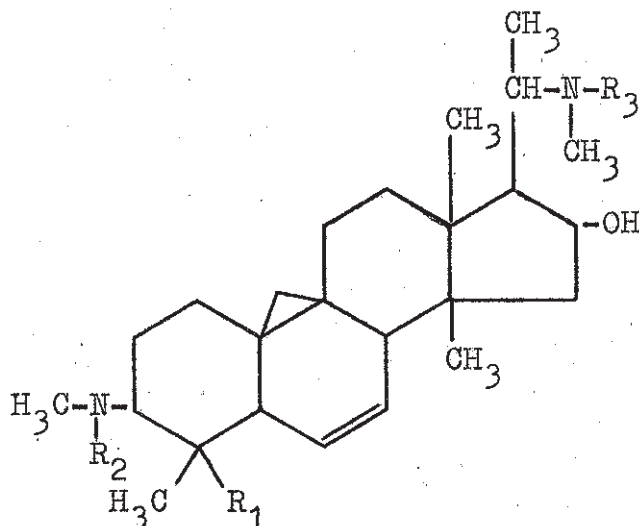
1146

Cyclobuxupalin-CAngiospermae (Dicotyledoneae)

Buxaceae

*Buxus papillosa*

712



	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>
Cyclovirobuxein-B	CH <sub>3</sub>	CH <sub>3</sub>	H
Cyclovirobuxein-A	CH <sub>3</sub>	CH <sub>3</sub>	CH <sub>3</sub>
Cyclomicrophyllin-C	CH <sub>2</sub> OH	H	CH <sub>3</sub>
Cyclomicrophyllin-B	CH <sub>2</sub> OH	CH <sub>3</sub>	H
Cyclomicrophyllin-A	CH <sub>2</sub> OH	CH <sub>3</sub>	CH <sub>3</sub>

Cyclovirobuxein-B

Angiospermae (Dicotyledoneae)

Buxaceae

Buxus malayana	Blatt	527
Buxus sempervirens		601

Cyclovirobuxein-A

Angiospermae (Dicotyledoneae)

Buxaceae

Buxus malayana	Blatt	518, 527
Buxus sempervirens		245

Cyclomicrophyllin-C/Cyclomicrophyllin-A

Angiospermae (Dicotyledoneae)

Buxaceae

Buxus microphylla var. suffruticosa		757
Buxus microphylla var. suffruticosa	Blatt + Zweig	758

Cyclomicrophyllin-B

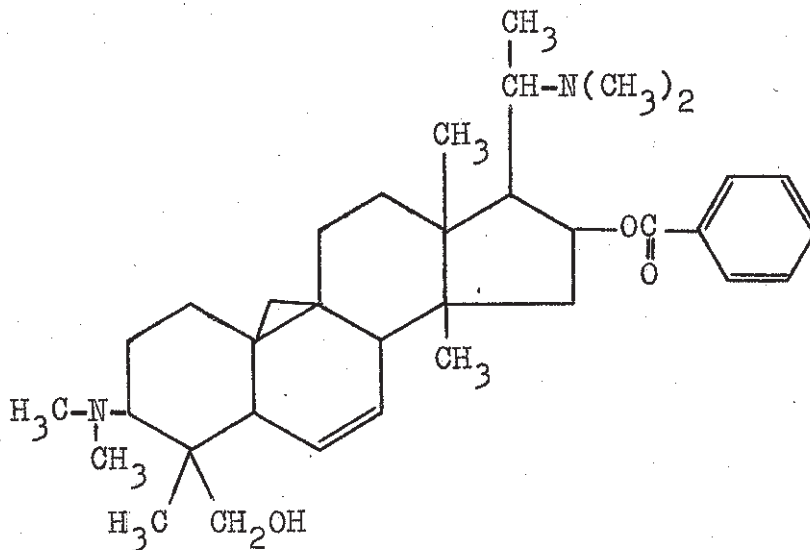
Angiospermae (Dicotyledoneae)

Buxaceae

Buxus balearica	Blatt	417, 517
-----------------	-------	----------



Buxus malayana	Blatt	527
Buxus microphylla var. suffruticosa		757
Buxus microphylla var. suffruticosa	Blatt + Zweig	758



Cyclomicrophyllidin-A

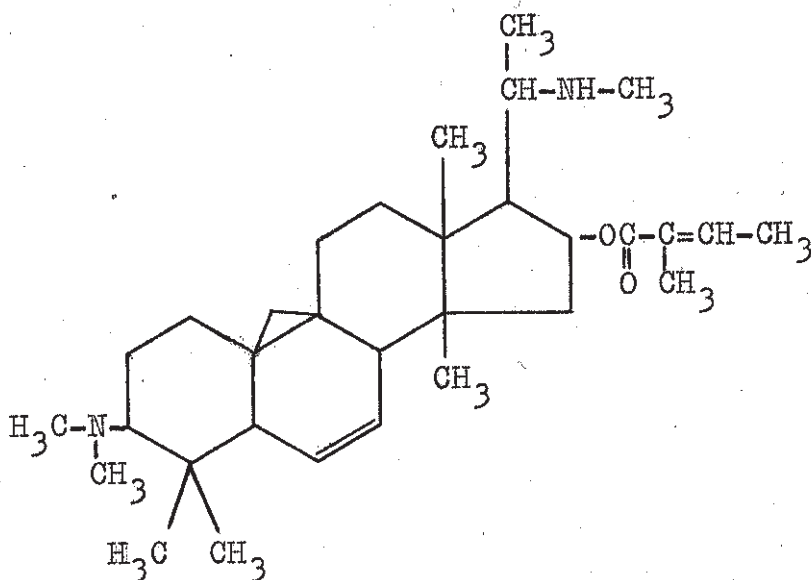
Angiospermae (Dicotyledoneae)

Buxaceae

Buxus microphylla var.  
suffruticosa

Blatt + Zweig

758



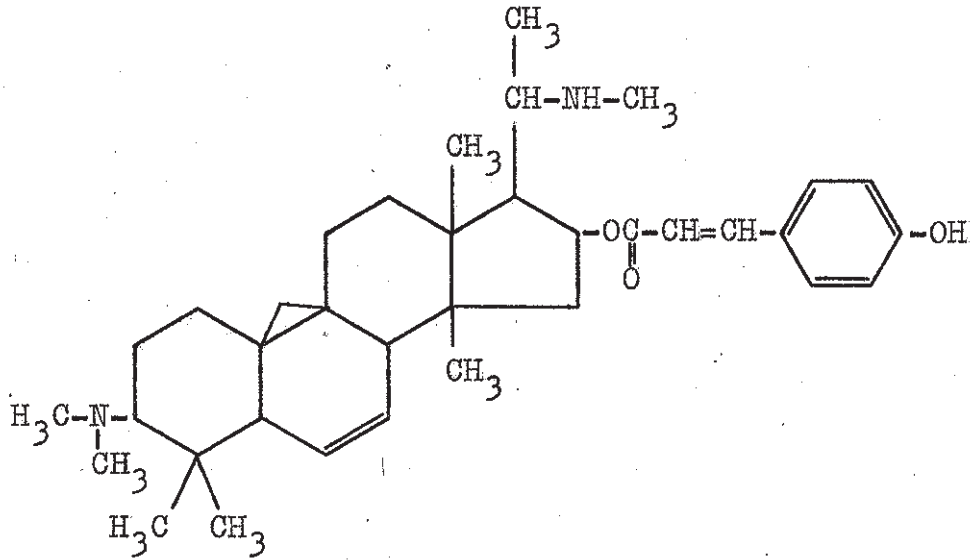
Tigloylcyclovirobuxein-B

Angiospermae (Dicotyledoneae)

Buxaceae

Buxus sempervirens

599

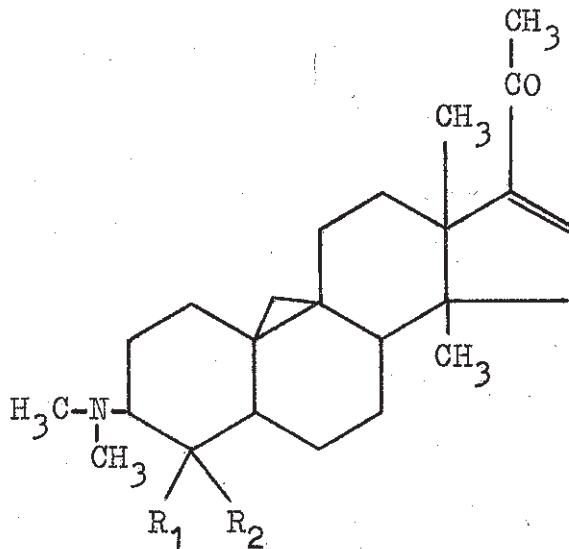
Cyclomalayanin-BAngiospermae (Dicotyledoneae)

Buxaceae

*Buxus malayana*

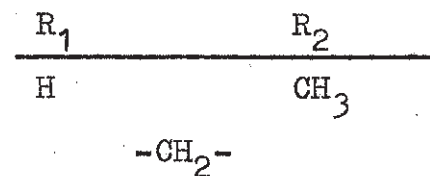
Blatt

527



Cyclobuxomicrein

Cyclomicrobuxein

CyclobuxomicreinAngiospermae (Dicotyledoneae)

Buxaceae

*Buxus microphylla* var.  
*suffruticosa*

Blatt + Zweig

759

CyclomicrobuxeinAngiospermae (Dicotyledoneae)

## Buxaceae

Buxus koreana

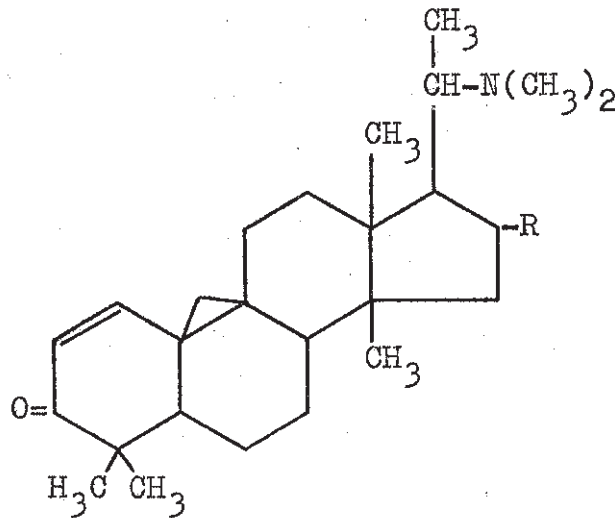
Blatt + Stengel

760

Buxus microphylla var.  
suffruticosa

Blatt + Zweig

759



Cyclobuxoviridin

 $\frac{R}{H}$ 

Cyclomikuranin

OH

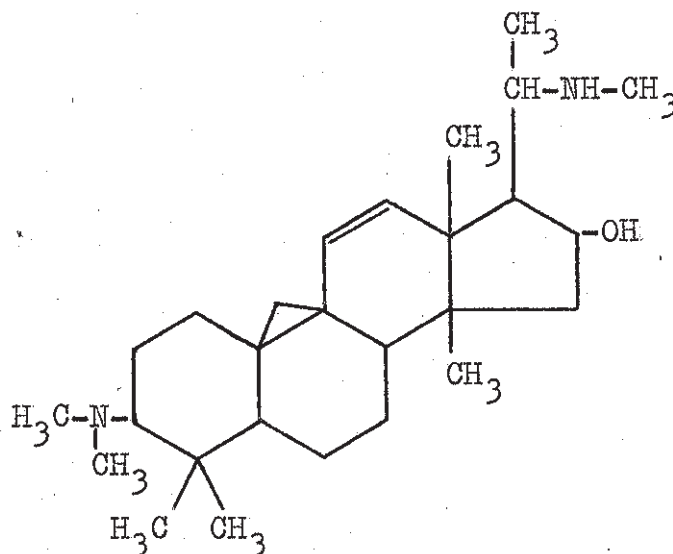
Cyclobuxoviridin/CyclomikuraninAngiospermae (Dicotyledoneae)

## Buxaceae

Buxus microphylla var.  
suffruticosa f. major

Blatt + Zweig

759

Cyclokoreanin-B

Angiospermae (Dicotyledoneae)

## Buxaceae

Buxus koreana

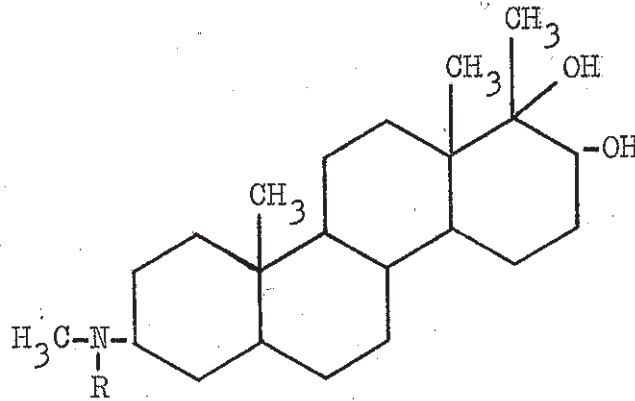
Blatt + Stengel

760

Buxus microphylla var. sinica

Blatt

65



Dictyolucidin



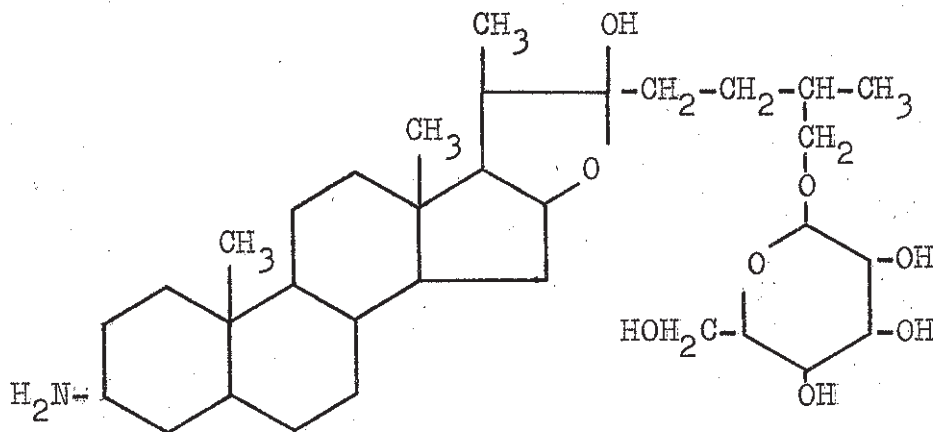
Dictyolucidamin

Dictyolucidin/DictyolucidaminAngiospermae (Dicotyledoneae)

## Apocynaceae

Dictyophleba lucida

477

JurubinAngiospermae (Dicotyledoneae)

## Solanaceae

Solanum paniculatum

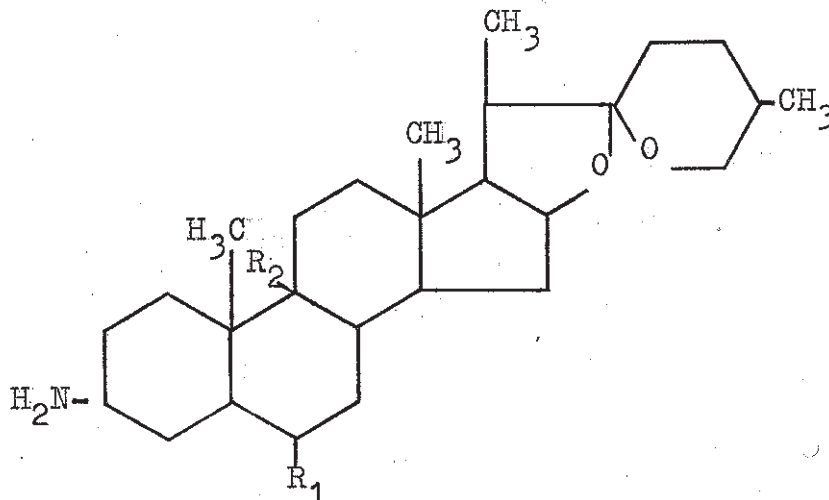
Wurzel

893, 972

Solanum torvum

Wurzel

973



	R <sub>1</sub>	R <sub>2</sub>	Chiralität
Isojurubidin	H	H	25 R
Jurubidin	H	H	25 S
9 $\alpha$ -Hydroxy-25-isojurubidin	H	OH	25 R
9 $\alpha$ -Hydroxy-jurubidin	H	OH	25 S
Isojuripidin	OH	H	25 R

Isojurubidin/Isojuripidin

Angiospermae (Dicotyledoneae)

Solanaceae

Solanum paniculatum

Wurzel

151

Jurubidin

Angiospermae (Dicotyledoneae)

Solanaceae

Solanum paniculatum

Wurzel

974

9 $\alpha$ -Hydroxy-25-isojurubidin

Angiospermae (Dicotyledoneae)

Solanaceae

Solanum paniculatum

Wurzel

151, 711,  
893

9 $\alpha$ -Hydroxy-jurubidin

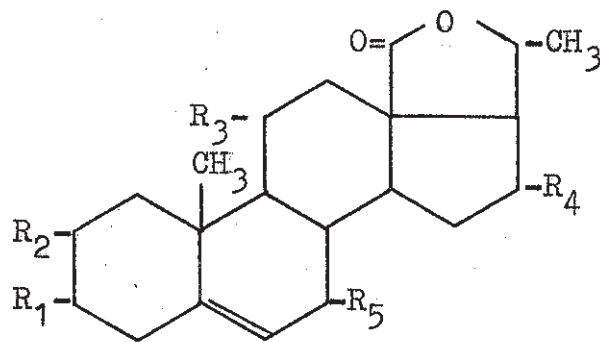
Angiospermae (Dicotyledoneae)

Solanaceae

Solanum paniculatum

Wurzel

711, 893



	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	R <sub>4</sub>	R <sub>5</sub>	Chiralität
Gitingensin	NH <sub>2</sub>	H	H	H	H	
20-Epi-paravallarin	NHCH <sub>3</sub>	H	H	H	H	20 R
Paravallarin	NHCH <sub>3</sub>	H	H	H	H	20 S
11 $\alpha$ -Hydroxy-paravallarin	NHCH <sub>3</sub>	H	OH	H	H	
Paravallaridin	NHCH <sub>3</sub>	H	H	OH	H	
7 $\alpha$ -Hydroxy-paravallarin	NHCH <sub>3</sub>	H	H	H	OH ( $\alpha$ )	
7 $\beta$ -Hydroxy-paravallarin	NHCH <sub>3</sub>	H	H	H	OH ( $\beta$ )	
Kibatalin	N(CH <sub>3</sub> ) <sub>2</sub> ( $\alpha$ )H	H	H	H	H	20 S
Epi-20N-methylparavallarin	N(CH <sub>3</sub> ) <sub>2</sub> ( $\beta$ )H	H	H	H	H	20 R
N-Methylparavallarin	N(CH <sub>3</sub> ) <sub>2</sub> ( $\beta$ )H	H	H	H	H	20 S
2 $\alpha$ -Hydroxy-20-epi-N-methylparavallarin	N(CH <sub>3</sub> ) <sub>2</sub>	OH	H	H	H	20 R
Lanitinin	N(CH <sub>3</sub> ) <sub>2</sub> ( $\alpha$ )OH	H	H	H	H	20 S
Lanitin	N(CH <sub>3</sub> ) <sub>2</sub> ( $\beta$ )OH	H	H	H	H	20 S

### Gitingensin

#### Angiospermae (Dicotyledoneae)

##### Apocynaceae

Kibatalia gitingensis

Blatt

6

#### 20-Epi-Paravallarin/2 $\alpha$ -Hydroxy-20-epi-N-methylparavallarin

#### Angiospermae (Dicotyledoneae)

##### Apocynaceae

Kibatalia gitingensis

Rinde

169

ParavallarinAngiospermae (Dicotyledoneae)

## Apocynaceae

Kibatalia gitingensis	Rinde	169
Paravallaris microphylla	Blatt	624

11 $\alpha$ -Hydroxy-paravallarin/7 $\alpha$ -Hydroxy-paravallarin7 $\beta$ -Hydroxy-paravallarinAngiospermae (Dicotyledoneae)

## Apocynaceae

Paravallaris microphylla		294
Paravallaris microphylla	Blatt	437

ParavallaridinAngiospermae (Dicotyledoneae)

## Apocynaceae

Paravallaris microphylla		625
--------------------------	--	-----

KibatalinAngiospermae (Dicotyledoneae)

## Apocynaceae

Kibatalia gitingensis		167
-----------------------	--	-----

Epi-20N-methylparavallarinAngiospermae (Dicotyledoneae)

## Apocynaceae

Kibatalia gitingensis	Blatt	168
-----------------------	-------	-----

N-MethylparavallarinAngiospermae (Dicotyledoneae)

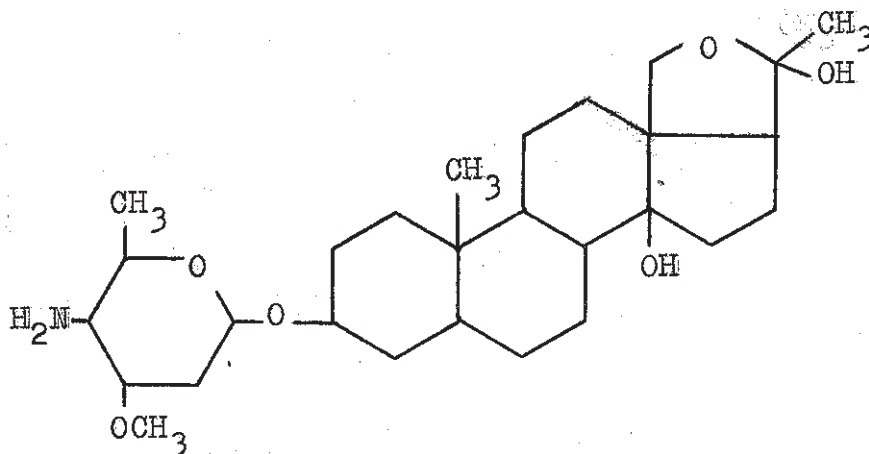
## Apocynaceae

Paravallaris microphylla	Blatt	624
--------------------------	-------	-----

Lanitin/LanitininAngiospermae (Dicotyledoneae)

## Apocynaceae

Kibatalia gitingensis	Rinde	76, 1255
-----------------------	-------	----------



Konfiguration des Zuckers

Holasantosin-A

D

Holantosin-C

L

Holasantosin-A

Angiospermae (Dicotyledoneae)

Apocynaceae

Holarrhena antidysenterica

Blatt

469

Holantosin-C

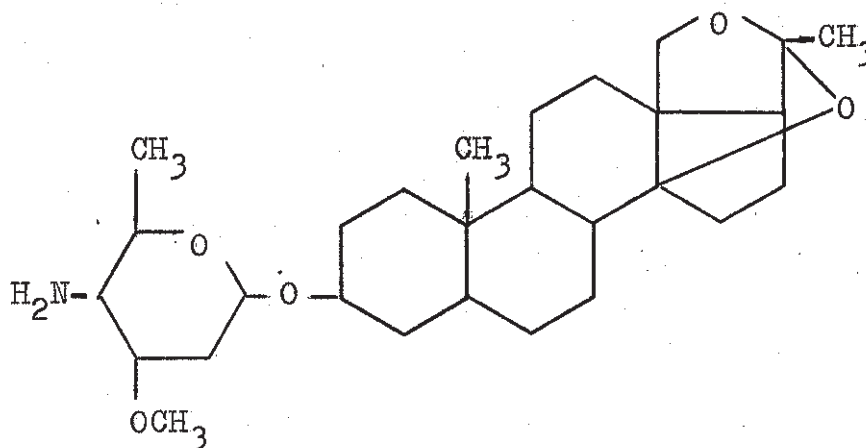
Angiospermae (Dicotyledoneae)

Apocynaceae

Holarrhena antidysenterica

Blatt

522



Konfiguration des Zuckers

Holasantosin-B

D

Holantosin-D

L



Holasantosin-BAngiospermae (Dicotyledoneae)

## Apocynaceae

Holarrhena antidysenterica

Blatt

469

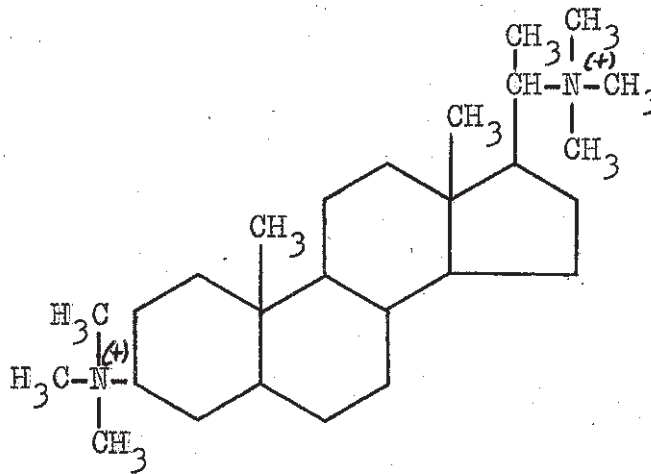
Holantosin-DAngiospermae (Dicotyledoneae)

## Apocynaceae

Holarrhena antidysenterica

Blatt

522

Steroid-AmmoniumverbindungenMalouetinAngiospermae (Dicotyledoneae)

## Apocynaceae

Malouetia bequaertiana

Wurzelrinde/Stamm-

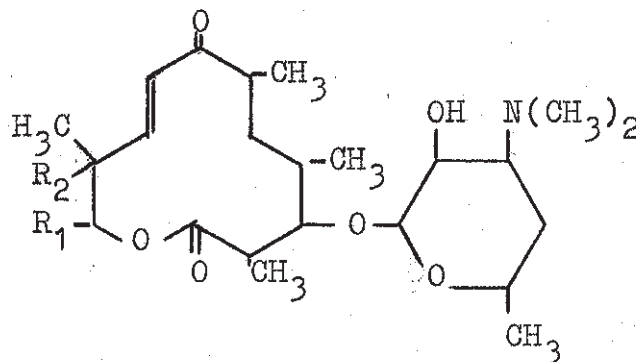
rinde/Blatt

471

Malouetia brachyloba

Blatt

519

Macrocyclische Amine

Antibioticum YC-17

R<sub>1</sub>CH<sub>2</sub>CH<sub>3</sub>R<sub>2</sub>

H

Methymycin

CH<sub>2</sub>CH<sub>3</sub>

OH

Neomethymycin

CH(OH)CH<sub>3</sub>

H

Antibiotikum YC-17/NeomethymycinBacteriophyta

## Streptomycetaceae

Streptomyces venezuelae MCRL 0376 Kulturfiltrat

541

MethymycinBacteriophyta

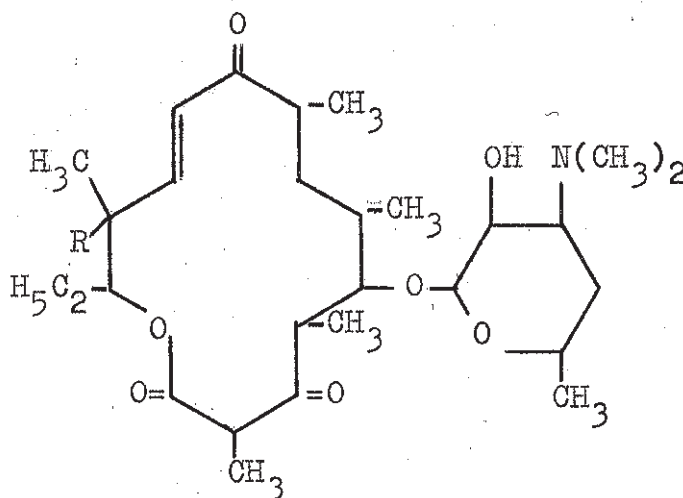
## Streptomycetaceae

Streptomyces venezuelae

247

Streptomyces venezuelae MCRL 0376 Kulturfiltrat

541



Narbomycin

R

Pikromycin

H

OH

NarbomycinBacteriophyta

## Streptomycetaceae

Streptomyces narbonensis

198

PikromycinBacteriophyta

## Actinomycetaceae

Actinomyces sp.

64, 115

## Streptomycetaceae

Streptomyces flavochromogenes

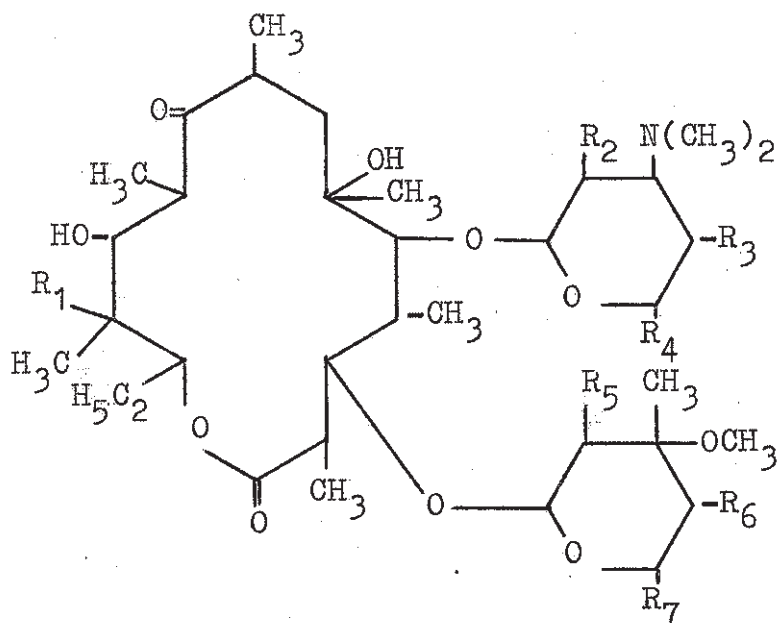
790

Streptomyces sp., 326 (UG)

116

Streptomyces sp., 3317

1021



	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	R <sub>4</sub>	R <sub>5</sub>	R <sub>6</sub>	R <sub>7</sub>
Erythromycin-B	H	H	OH	OH	OH	H	OH
Erythromycin-A	OH	OH	H	CH <sub>3</sub>	H	OH	CH <sub>3</sub>

Erythromycin-B

Bacteriophyta

Streptomycetaceae

Streptomyces erythreus

825

Erythromycin-A

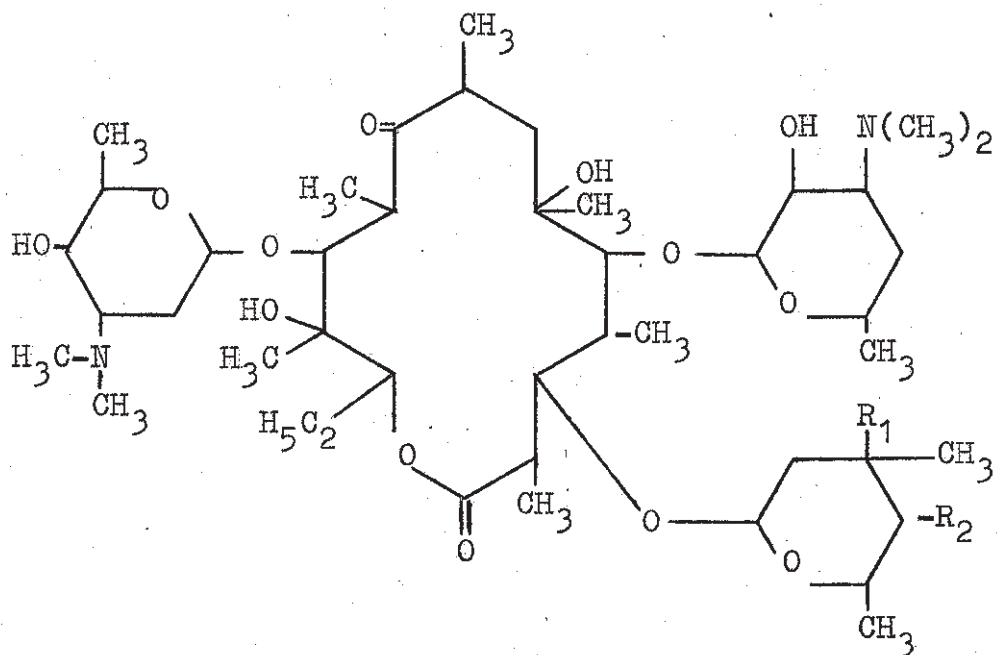
Bacteriophyta

Streptomycetaceae

Streptomyces erythreus

Streptomyces griseoplanus

692, 825  
1123



	$R_1$	$R_2$
Megalomycin-A	OH	OH
Megalomycin-B	OH	OCOCH <sub>3</sub>
Megalomycin-C <sub>1</sub>	OCOCH <sub>3</sub>	OCOCH <sub>3</sub>
Megalomycin-C <sub>2</sub>	OCOCH <sub>3</sub>	OCOC <sub>2</sub> H <sub>5</sub>

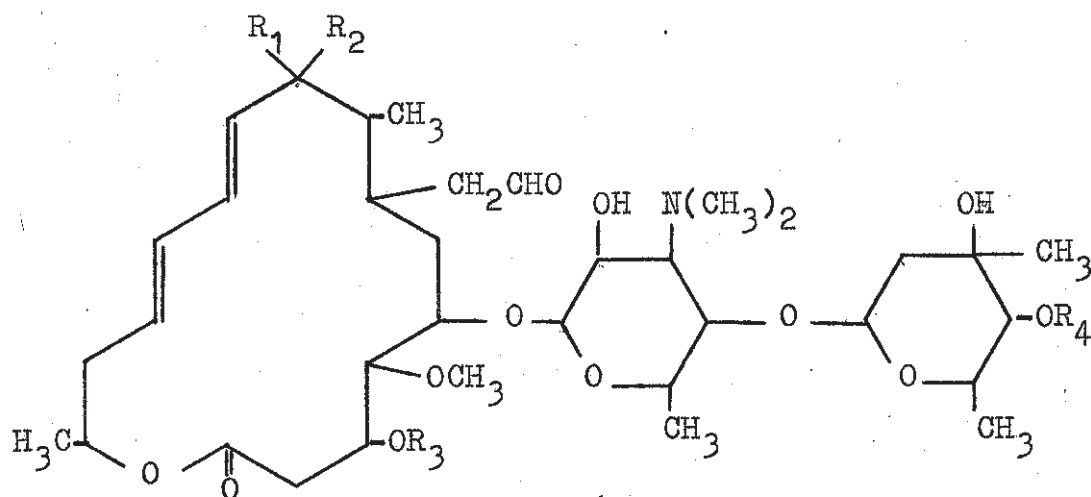
Megalomycin-A/Megalomycin-B/Megalomycin-C<sub>1</sub>/Megalomycin-C<sub>2</sub>

Bacteriophyta

Streptomycetaceae

Micromonospora megalomicea

1214



	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	R <sub>4</sub>
Leucomycin-V	H	OH	H	H
Leucomycin-A <sub>9</sub>	H	OH	H	COCH <sub>3</sub>
Leucomycin-A <sub>7</sub>	H	OH	H	COCH <sub>2</sub> CH <sub>3</sub>
Leucomycin-A <sub>5</sub>	H	OH	H	CO(CH <sub>2</sub> ) <sub>2</sub> CH <sub>3</sub>
Leucomycin-A <sub>1</sub>	H	OH	H	COCH <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub>
Leucomycin-U	H	OH	COCH <sub>3</sub>	H
Leucomycin-A <sub>8</sub>	H	OH	COCH <sub>3</sub>	COCH <sub>3</sub>
Leucomycin-A <sub>6</sub>	H	OH	COCH <sub>3</sub>	COCH <sub>2</sub> CH <sub>3</sub>
Leucomycin-A <sub>4</sub>	H	OH	COCH <sub>3</sub>	CO(CH <sub>2</sub> ) <sub>2</sub> CH <sub>3</sub>
Leucomycin-A <sub>3</sub>	H	OH	COCH <sub>3</sub>	COCH <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub>
Antibiotikum YL-704-C <sub>2</sub>	H	OH	COCH <sub>2</sub> CH <sub>3</sub>	COCH <sub>3</sub>
Antibiotikum YL-704-B <sub>1</sub>	H	OH	COCH <sub>2</sub> CH <sub>3</sub>	COCH <sub>2</sub> CH <sub>3</sub>
Antibiotikum SF-837-A <sub>2</sub>	H	OH	COCH <sub>2</sub> CH <sub>3</sub>	CO(CH <sub>2</sub> ) <sub>2</sub> CH <sub>3</sub>
Espinomycin-A <sub>2</sub>	H	OH	COCH <sub>2</sub> CH <sub>3</sub>	COCH(CH <sub>3</sub> ) <sub>2</sub>
Antibiotikum YL-704-A	H	OH	COCH <sub>2</sub> CH <sub>3</sub>	COCH <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub>
Platenomycin-A <sub>0</sub>	H	OH	CO(CH <sub>2</sub> ) <sub>2</sub> CH <sub>3</sub>	COCH <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub>
Niddamycin	-O-		H	COCH <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub>
Magnamycin-B	-O-		COCH <sub>3</sub>	COCH <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub>
Antibiotikum SF-837-A <sub>3</sub>	-O-		COCH <sub>2</sub> CH <sub>3</sub>	COCH <sub>2</sub> CH <sub>3</sub>
Antibiotikum YL-704-W <sub>1</sub>	-O-		COCH <sub>2</sub> CH <sub>3</sub>	COCH <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub>
Antibiotikum SF-837-A <sub>4</sub>	-O-		COCH <sub>2</sub> CH <sub>3</sub>	CO(CH <sub>2</sub> ) <sub>2</sub> CH <sub>3</sub>
Antibiotikum YL-704-W <sub>2</sub>	-O-		CO(CH <sub>2</sub> ) <sub>2</sub> CH	COCH <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub>

Leucomycin-V/Leucomycin-A<sub>9</sub>/Leucomycin-A<sub>7</sub>/Leucomycin-A<sub>5</sub>Leucomycin-A<sub>1</sub>/Leucomycin-U/Leucomycin-A<sub>8</sub>/Leucomycin-A<sub>4</sub>Bacteriophyta

## Streptomycetaceae

Streptomyces kitasatoensis

793, 1206,  
1207, 1208Leucomycin-A<sub>6</sub>Bacteriophyta

## Streptomycetaceae

Streptomyces kitasatoensis

793, 1206,  
1207, 1208

Streptomyces platensis

315, 539,  
1094, 1095Leucomycin-A<sub>3</sub>Bacteriophyta

## Streptomycetaceae

Streptomyces kitasatoensis

402, 403,  
792, 793,  
1206, 1207,  
1208

Streptomyces platensis

315, 539,  
1094, 1095Antibiotikum YL-704-C<sub>2</sub>Bacteriophyta

## Streptomycetaceae

Streptomyces fungicidicus  
espinomyceticus

664

Streptomyces platensis

315, 539,  
1094, 1095Antibiotikum YL-704-B<sub>1</sub>Bacteriophyta

## Streptomycetaceae

Streptomyces fungicidicus  
espinomyceticus

664

Streptomyces mycarofaciens

775

Streptomyces mycarofaciens

Kulturfl.

1164

Streptomyces platensis

315, 539,  
1094, 1095

Streptomyces platensis var. sp.

MCRL 0388

1094

Antibiotikum SF-837-A<sub>2</sub>/Antibiotikum SF-837-A<sub>3</sub>/Antibiotikum SF-837-A<sub>4</sub>Bacteriophyta

## Streptomycetaceae

Streptomyces mycarofaciens Fermentationsfl. 1163

Espinomycin-A<sub>2</sub>Bacteriophyta

## Streptomycetaceae

Streptomyces fungicidicus  
espinomyceticus 664Antibiotikum YL-704-ABacteriophyta

## Streptomycetaceae

Streptomyces platensis 315, 539,  
1094, 1095Streptomyces platensis var. sp.  
MCRL 0388 1094Platenomycin-A<sub>0</sub>/Antibiotikum YL-704-W<sub>1</sub>/Antibiotikum YL-704-W<sub>2</sub>Bacteriophyta

## Streptomycetaceae

Streptomyces platensis 315, 539,  
1094, 1095NiddamycinBacteriophyta

## Streptomycetaceae

Streptomyces djakartensis,  
ATCC 13441 434Magnamycin-BBacteriophyta

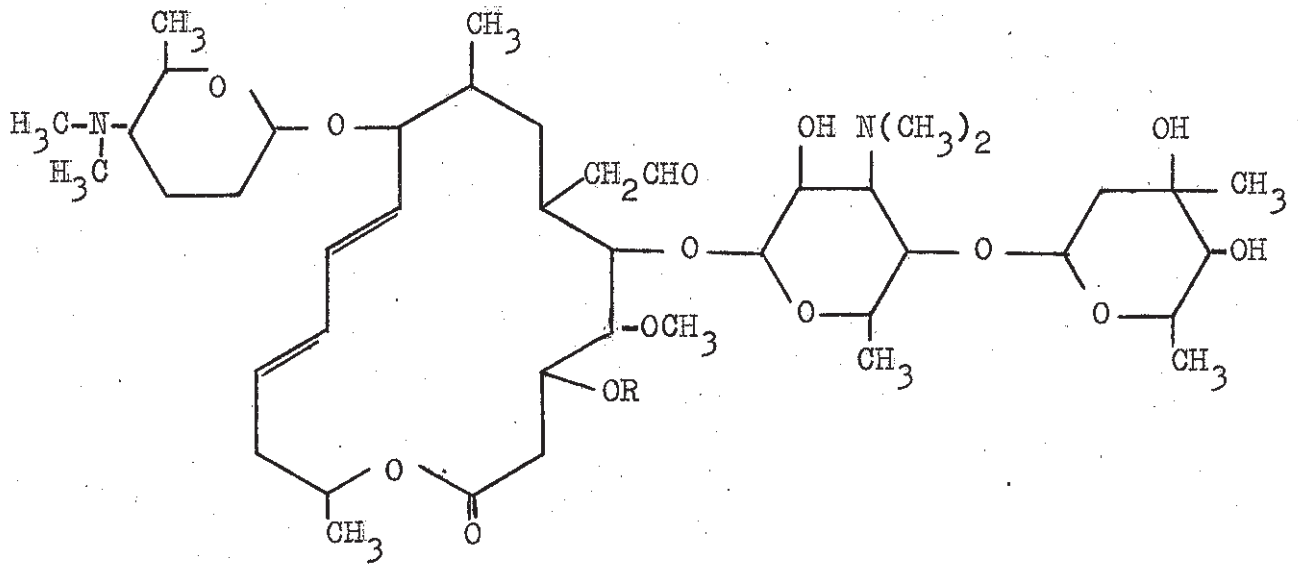
## Streptomycetaceae

Streptomyces halstedii 425

Leucomycin-KomplexBacteriophyta

## Streptomycetaceae

Streptomyces kitasatoensis 403



Spiramycin-A

Spiramycin-B

Spiramycin-C

$$\frac{R}{H}$$
COCH<sub>3</sub>COCH<sub>2</sub>CH<sub>3</sub>

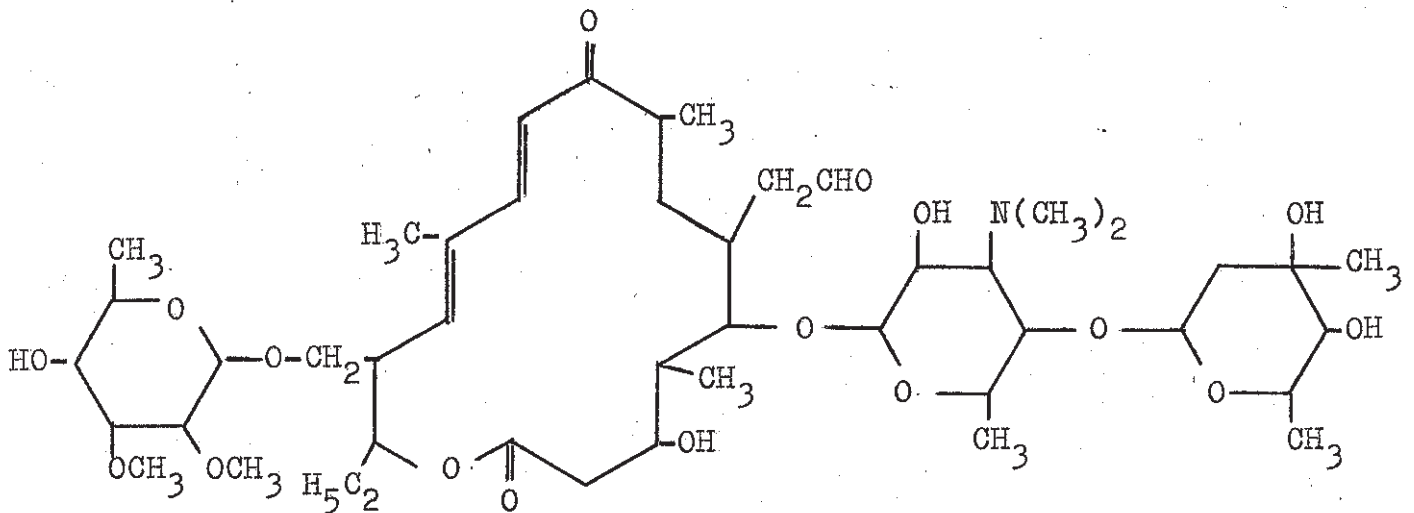
Spiramycin-A/Spiramycin-B/Spiramycin-C

Bacteriophyta

Streptomycetaceae

Streptomyces ambofaciens

831, 889



Tylosin

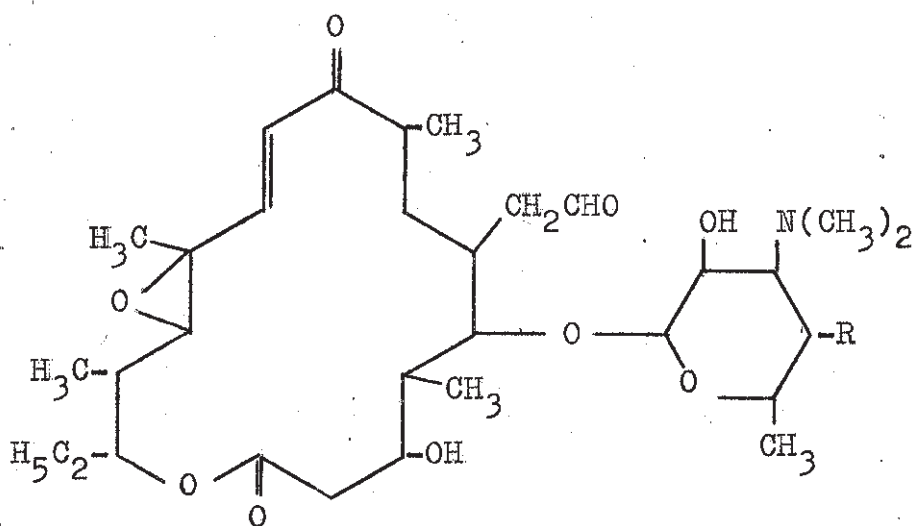
Bacteriophyta

Streptomycetaceae

Streptomyces fradiae

240, 379,  
691, 728,  
729





Rosamycin

Cirramycin-A<sub>1</sub>R

H

OH

RosamycinBacteriophyta

Streptomycetaceae

Micromonospora rosaria

876, 1196

Cirramycin-A<sub>1</sub>Bacteriophyta

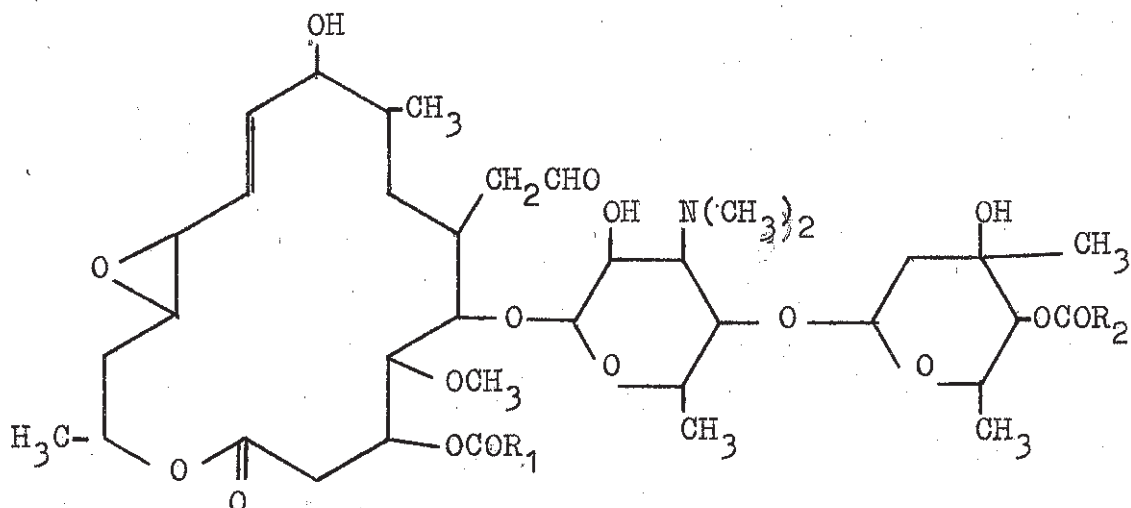
Streptomycetaceae

Streptomyces cirratus, JTB-3

Streptomyces cirratus, 12090

575

574



	$R_1$	$R_2$
Maridomycin-VI	CH <sub>3</sub>	CH <sub>3</sub>
Maridomycin-IV	CH <sub>3</sub>	CH <sub>2</sub> CH <sub>3</sub>
Maridomycin-II	CH <sub>3</sub>	CH <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub>
Maridomycin-V	CH <sub>2</sub> CH <sub>3</sub>	CH <sub>3</sub>
Maridomycin-III	CH <sub>2</sub> CH <sub>3</sub>	CH <sub>2</sub> CH <sub>3</sub>
Maridomycin-G	CH <sub>2</sub> CH <sub>3</sub>	(CH <sub>2</sub> ) <sub>2</sub> CH <sub>3</sub>
Maridomycin-I	CH <sub>2</sub> CH <sub>3</sub>	CH <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub>

Maridomycin-VI/Maridomycin-IV/Maridomycin-V/Maridomycin-G

Bacteriophyta

Streptomycetaceae

Streptomyces hygrosopicus,  
B-5050

744, 745,  
746, 795

Maridomycin-II/Maridomycin-I

Bacteriophyta

Streptomycetaceae

Streptomyces platensis

315, 539,  
1094, 1095

Maridomycin-III

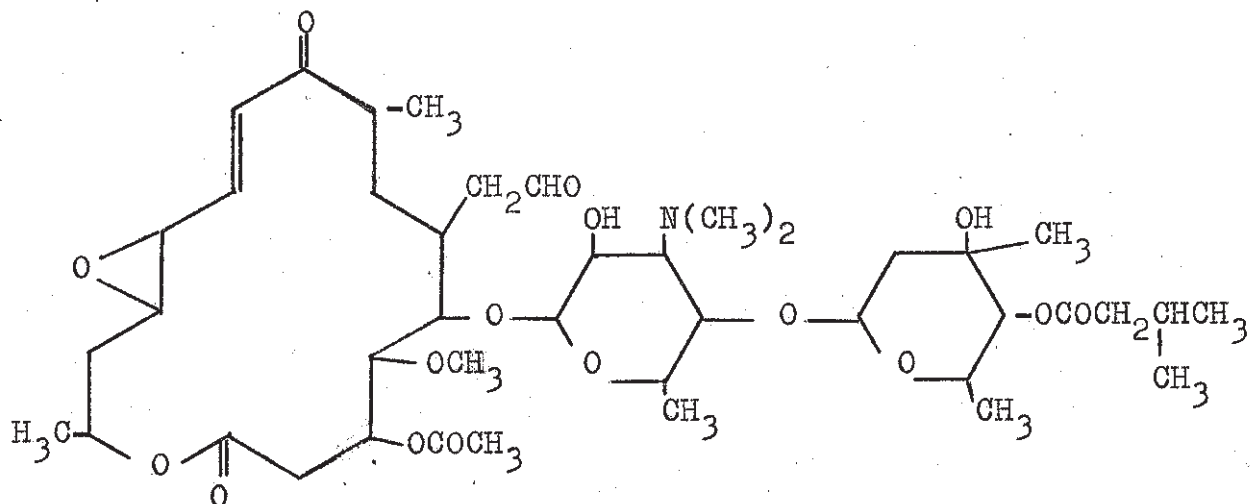
Bacteriophyta

Streptomycetaceae

Streptomyces hygrosopicus,  
B-5050

744, 745,  
746, 795,  
315, 539,  
1094, 1095

Streptomyces platensis

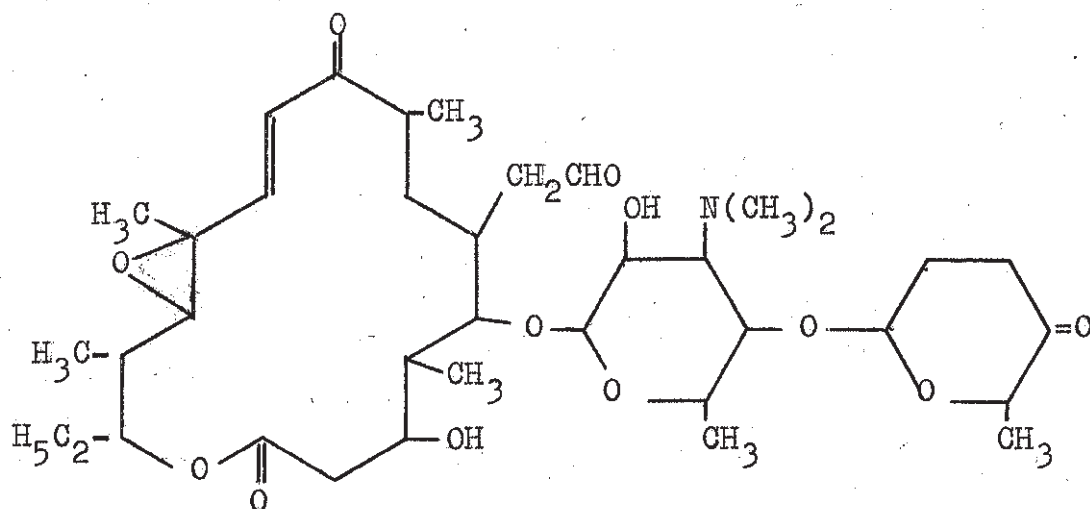
Carbomycin-ABacteriophyta

Streptomycetaceae

*Streptomyces halstedii**Streptomyces* sp.

1115

805

Cirramycin-B<sub>1</sub>Bacteriophyta

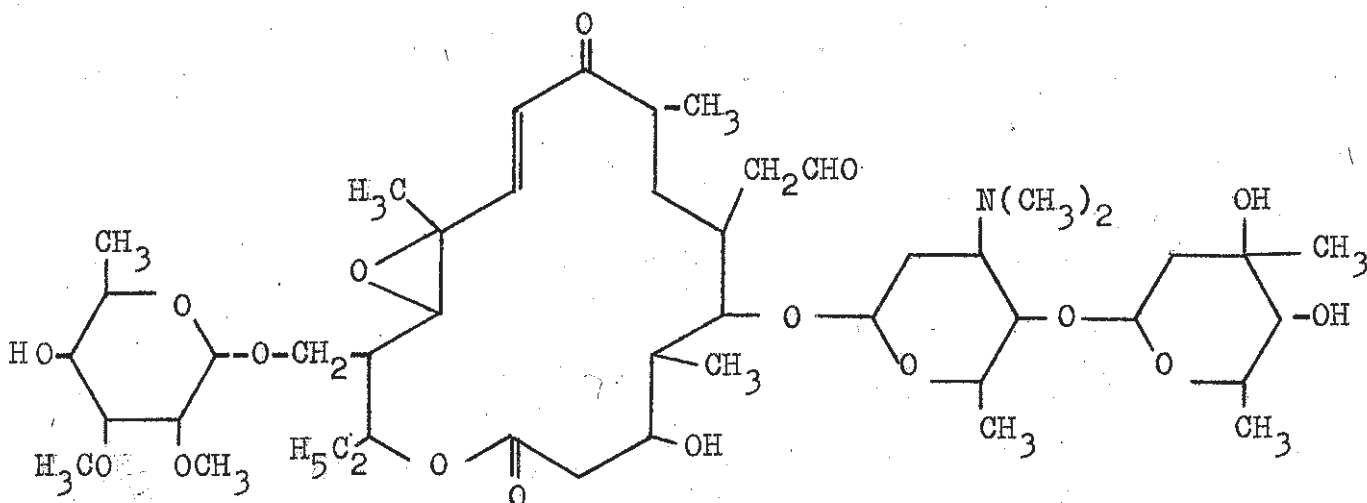
Streptomycetaceae

*Streptomyces cirratus*, 12090*Streptomyces fradiae* var.  
*acinicolor*, B-58941

574

602, 1096,  
1097, 1098,  
1099*Streptomyces griseoflavus*,  
ETH 23112

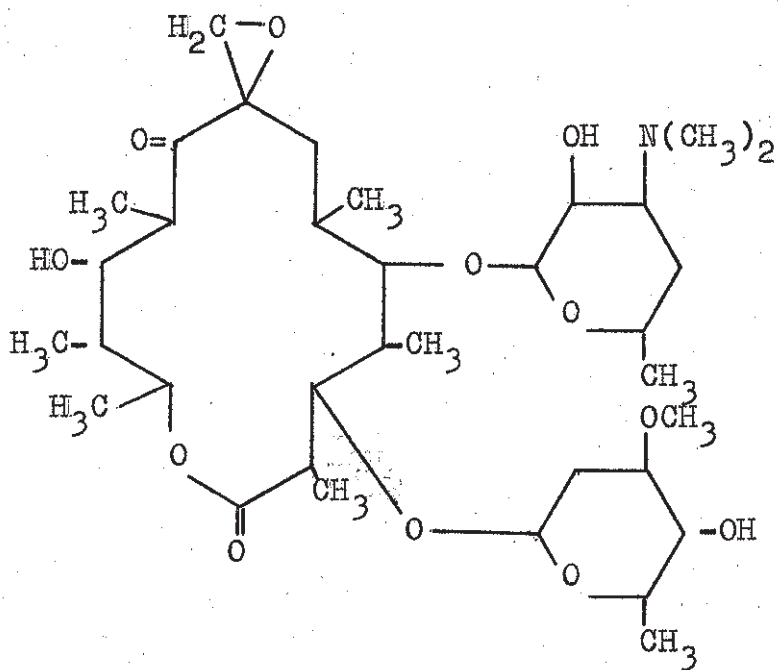
82

AngolamycinBacteriophyta

Streptomycetaceae

Streptomyces hygrosopicus,  
B-5050

Streptomyces eurythermus

744, 745,  
746, 795,  
132, 199,  
540OleandomycinBacteriophyta

Streptomycetaceae

Streptomyces antibioticus

1048

Teil B

Acanthaceae	Tetramethylputrescin	
Aceraceae	Cholin Isoamylamin	Methylamin
Actinomycetaceae	ADOT Mannosidostreptomycin	Pikromycin
Agaricaceae	Acetylcholin Cholin Ethanolamin Galactosamin	Galegin Glucosamin Methylamin Trimethylamin
Aizoaceae	Dehydrojoubertiamin Dihydrojoubertiamin	Hordenin Joubertiamin
Alangiaceae	Cholin	
Amanitaceae	Acetylcholin allo-Muscarin 3-Butenyl-trimethylam- moniumchlorid Cholin epi-Muscarin	Ethanolamin Isoamylamin Muscaridin Muscarin Putrescin Trimethylamin
Amaranthaceae	Cholin	
Amaryllidaceae	Belladin Hordenin Ismin N-Methyltyramin	Octopamin Synephrin Tyramin
Anacardiaceae	Cholin	Tyramin
Annonaceae	Acetylcholin Atherosperminin 1-Dimethylaminoethyl- 3-hydroxy-4-methoxy- phenanthren	8-Methoxy-uvariopsin Noruvariopsamin Uvariopsamin Uvariopsamin-N-oxid Uvariopsin
Apocynaceae	Acetylcholin Bokitamin Buxomegin Cholin Chonemorpin N-Demethyl-mitiphyllin Dictyodiamin Dictyolucidamin Dictyolucidin Dictyophlebin Dihydroholaphyllamin Dihydrokurchessin N,N-Dimethylfuntumin Epi-20N-methylparavallarin 20-Epi-paravallarin Ethanolamin Funtumaftrin-B Funtumaftrin-C Funtumidin Funtumin Funtuphyllamin-A Funtuphyllamin-B Funtuphyllamin-C Gitingensin Holacurtenin	Holaphyllidin Holaphyllin Holaphyllinol Holarosin-A Holarrhena-Alkaloid-C Holarrhidin Holarrhimin Holasantosin-A Holasantosin-B 2 $\alpha$ -Hydroxy-20-epi-N- methylparavallarin 7 $\alpha$ -Hydroxy-paravallarin 11 $\alpha$ -Hydroxy-paravallarin 7 $\beta$ -Hydroxy-paravallarin Irehamin Irehdiamin-A Irehdiamin-B Kibatalin Kurchalin Kurchessin Kurchilin Kurchiphyllamin Kurchiphyllin Lanitin Lanitinin Madouetin

	Holacurtin	N-Methylfuntumin
	Holadysamin	Methylholaphyllin
	Holadysin	N <sup>2</sup> -Methylholarrhimin
	Holafebrin	N <sup>20</sup> -Methylholarrhimin
	Holafebrin-O-glucosid	N-Methylparavallarin
	Holamin	Mitiphyllin
	Holaminol	Paravallaridin
	Holantosin-C	Paravallarin
	Holantosin-D	Tetramethylholarrhidin
	Holaphyllamin	Tetramethylholarrhimin
Aquifoliaceae	Cholin	
Araceae	Agmatin	Isoamylamin
	Cadaverin	Isobutylamin
	Cholin	Methylamin
	Diethylamin	$\beta$ -Phenylethylamin
	Dimethylamin	1,2-Propandiamin
	Ethanolamin	Putrescin
	Ethylamin	Trimethylamin
	1,6-Hexandiamin	Tyramin
Araliaceae	Cholin	Ethanolamin
Aristolochiaceae	Aporhinmethin	Trimethylamin
	Cholin	
Asclepiádaceae	Cholin	$\beta$ -Phenylethylamin
	Isoamylamin	Trimethylaminoxid
	Isobutylamin	
Aspergillaceae	2-Aminophenol	Spermidin
	Cholin	Spermin
	1,2-Dimethyl-4,5-di-aminobenzol	
Auriculariaceae	Ethanolamin	
Azotobacteriaceae	1,3-Propandiamin	Spermin
	Spermidin	
Bacillaceae	Cadaverin	$\beta$ -Phenylethylamin
	Di-n-butylamin	1,3-Propandiamin
	Ethylamin	Putrescin
	Glucosamin	Spermidin
	n-Hexylamin	Spermin
	Isoamylamin	Trimethylamin
	Isobutylamin	Xylostacin
	Methylamin	
Bacteriaceae	Trimethylamin	
Balsaminaceae	Cholin	
Bangiaceae	Cholin	Methylamin
Berberidaceae	Hordenin	Thaspin
	Leonticin	Tyramin
Betulaceae	Cholin	
Bignoniaceae	Tyramin	
Bombacaceae	Ethanolamin	
Boraginaceae	Cholin	Ethanolamin

Brevibacteriaceae	Cadaverin	Methylamin
	Dimethylamin	Trimethylamin
	Ethylamin	Tyramin
Bromeliaceae	Tyramin	
Buxaceae	Buxamin-A	Cycloprotobuxin-D
	Buxamin-C	Cycloprotobuxin-F
	Buxamin-E	Cyclorolfeibuxin-C
	Buxaminol-E	Cyclorolfein
	Buxandonin	Cyclosuffrobuxin
	Buxazidin-B	Cyclosuffrobuxinin
	Buxitrienin-C	Cyclovirobuxein-A
	Buxocyclamin-A	Cyclovirobuxein-B
	Buxocyclin	Cyclovirobuxin-A
	Buxomegin	Cyclovirobuxin-B
	Buxpsiin	Cyclovirobuxin-C
	Buxtauin	Cyclovirobuxin-D
	Cyclobuxamin	Desacyl-epipachisamin-A
	Cyclobuxin-B	Desoxy-16-buxidienin
	Cyclobuxin-D	Dictyodiamin
	Cyclobuxomicrein	Dihydrocyclomicrophylli-
	Cyclobuxophyllin	din-A
	Cyclobuxophyllinin	Dihydro-cyclomicrophyl-
	Cyclobuxosuffrin	lin-A
	Cyclobuxoviridin	Dihydro-cyclomicrophyl-
	Cyclobuxupalin-C	lin-F
	Cyclokoreanin-B	Dihydrokurchessin
	Cyclomalayanin-B	Epipachisamin
	Cyclomicrobuxein	Norbuxamin
	Cyclomicrobuxin	Pachysamin-A
	Cyclomicrophyllidin-A	Pachysandrin-C
	Cyclomicrophyllin-A	Pachysandrin-D
	Cyclomicrophyllin-B	Sarcococca-Alkaloid-B
	Cyclomicrophyllin-C	Sarcococca-Alkaloid-C
	Cyclomikuranin	Terminalin
	Cyclopapilosin-D	Tigloylcyclovirobuxein-
	Cycloprotobuxin-A	O-Vanillyl-cycloviro-
	Cycloprotobuxin-C	buxein-D
Cactaceae	Candicin	N-Methyl-3,4-dimethoxy-
	Cholin	β-methoxyphenylethyl-
	Corynein	amin
	3-Demethylmezcalin	N-Methyl-3,4-dimethoxy-
	3-Demethyltrichocerein	phenylethylamin
	3,5-Dimethoxy-4-hydro-	N-Methyl-3-hydroxy-4,5-
	xyphenylethylamin	dimethoxyphenylethyl-
	N,N-Dimethyl-3,4-di-	amin
	methoxy-β-methoxy-	N-Methyl-metanephrin
	phenylethylamin	N-Methyl-4-methoxyphe-
	N,N-Dimethyl-3,4-di-	nylethylamin
	methoxyphenylethyl-	N-Methyl-3-methoxytyram
	amin	N-Methylmezcalin
	N,N-Dimethyl-3-methoxy-	N-Methyl-β-phenylethyl-
	tyramin	amin
	Dopamin	β-O-Methylsynephrin
	Homoveratrylamin	N-Methyltyramin
	Hordenin	O-Methyltyramin
	3-Hydroxy-4-methoxy-	Mezcalin
	phenylethylamin	Nor-Macromerin
	Macromerin	Synephrin
	Metanephrin	Trichocerein
	3-Methoxytyramin	Tyramin



Calycanthaceae	Trimethylamin	
Campanulaceae	Cholin Ethanolamin	Trimethylaminoxid
Capparaceae	Cholin Dimethylamin	Tetramin Trimethylamin
Caprifoliaceae	Cholin Ethanolamin Ethylamin n-Heptylamin n-Hexylamin Isoamylamin	Isobutylamin Methylamin n-Octylamin β-Phenylethylamin Tyramin
Cariaceae	Cholin	
Caryophyllaceae	Cholin Dopamin Ethanolamin Ethylamin	n-Hexylamin Isoamylamin 2-Methylbutylamin
Celastraceae	Cholin L-Ephedrin	D-Norpseudoephedrin
Ceramiaceae	Cholin Ethylamin Isoamylamin Isobutylamin	Methylamin β-Phenylethylamin n-Propylamin Trimethylamin
Chenopodiaceae	Acetylcholin Agmatin Cholin Dopamin Guanidin N-Methyl-β-phenyl-ethylamin	N-Methyltyramin n-Propylamin Putrescin Spermidin Spermin Trimethylamin Tyramin
Chlorellaceae	Cholin Dimethylamin Ethanolamin	Methylamin Putrescin Spermidin
Chordaceae	Methylamin	
Chordariaceae	Cholin	Ethanolamin
Cladoniaceae	Cholin	Ethanolamin
Cladophoraceae	Isoamylamin Methylamin	Trimethylamin
Clathraceae	Dimethylamin Methylamin	Trimethylamin
Clavariaceae	Cholin	
Clavicipitaceae	Acetylcholin Agmatin Cadaverin Cholin Ethanolamin Ethylamin Glucosamin und/oder Galactosamin n-Hexylamin	Isoamylamin Isobutylamin Isopropylamin Methylamin β-Phenylethylamin n-Propylamin Putrescin Trimethylamin Tyramin
Codiaceae	Ethylamin Isoamylamin Isobutylamin	Methylamin Trimethylamin
Coelastraceae	Cholin Dimethylamin Ethanolamin	Methylamin Putrescin Spermidin



Combretaceae	Cholin	
Compositae	Acanthoidin Acanthoin Agmatin Cholin Ethanolamin Ethylamin	Putrescin Spermidin Spermin Trimethylamin Tyramin
Convolvulaceae	Cholin	
Coprinaceae	n-Butylamin Cadaverin Cholin Dimethylamin Ethylamin Guanidin Isoamylamin	Methylamin $\beta$ -Phenylethylamin n-Propylamin Putrescin Spermidin Tyramin
Corallinaceae	Isoamylamin Methylamin	Trimethylamin
Cornaceae	$\beta$ -Phenylethylamin	Trimethylamin
Cortinariaceae	allo-Muscarin allo-Normuscarin Cadaverin Cholin epiallo-Muscarin epi-Muscarin (+)-epi-Muscarin epi-Normuscarin Ethanolamin	Ethylamin Isoamylamin Methylamin Muscarin Normuscarin $\beta$ -Phenylethylamin n-Propylamin Putrescin
Corynebacteriaceae	Ethylamin Isobutylamin	$\beta$ -Phenylethylamin
Coscinodiscaceae	Trimethylamin	
Cruciferae	Acetylcholin Agmatin Benzylamin Cholin Ethanolamin Hesperalin n-Hexylamin p-Hydroxybenzylamin Isoamylamin	Isoferulasäurecholin- ester 2-Methylbutylamin Putrescin Sinapin Spermidin Spermin Tyramin
Cryptococcaceae	Cholin	
Cucurbitaceae	Acetylcholin n-Butylamin Cholin Ethanolamin	Ethylamin Guanidin Spermidin Spermin
Cupressaceae	Spermidin	Spermin
Cyperaceae	Octopamin	Tyramin
Cystoseiraceae	Methylamin	Trimethylamin
Delesseriaceae	Cholin Ethylamin Isoamylamin Isobutylamin	Methylamin $\beta$ -Phenylethylamin Trimethylamin
Dematiaceae	Cholin	

Desmarestiaceae	Cholin Dimethylamin Ethylamin Isoamylamin Isobutylamin	Methylamin β-Phenylethylamin n-Propylamin Trimethylamin
Dioscoreaceae	Dopamin	
Dipsacaceae	Cholin	
Duomontiaceae	Ethylamin Isoamylamin Isobutylamin Methylamin	β-Phenylethylamin n-Propylamin Trimethylamin
Ebenaceae	Acetylcholin	
Elaeagnaceae	Cholin	
Enterobacteriaceae	Cadaverin n-Hexylamin Isoamylamin Isobutylamin β-Phenylethylamin	Putrescin Spermidin Spermin Trimethylamin
Ephedraceae	Cholin L-Ephedrin N-Methylbenzylamin N-Methyl-L-ephedrin	N-Methyl-D-pseudoephedrin L-Norephedrin D-Norpseudoephedrin D-Pseudoephedrin
Ericaceae	Cholin	O-Methyltyramin
Erythroxylaceae	Cholin	
Euglenaceae	Cholin	
Euphorbiaceae	Agmatin Cholin N,N'-Diisopentenylguanidin Ethanolamin Hordenin Isoamylamin	Methylamin N-Methylhomotyramin N-Methyltyramin Pterogynin N,N',N''-Triisopentenylguanidin Trimethylamin
Fagaceae	Cholin	
Fucaceae	Cholin Methylamin	Trimethylamin
Geraniaceae	Cholin Ethanolamin Ethylamin	Putrescin Tyramin
Gigartinaceae	Cholin Methylamin	Trimethylamin
Ginkgoaceae	Methylamin	
Globulariaceae	Cholin	
Gomphidiaceae	Ethanolamin	
Gramineae	Agmatin Cadaverin Candicin Cholin Dimethylamin Ethanolamin Ethylamin Guanidin n-Hexylamin Hordenin p-Hydroxybenzylamin	Isoamylamin Isobutylamin Methylamin N-Methyltyramin Octopamin n-Propylamin Putrescin Spermidin Spermin Tyramin

Guttiferae	Cholin	
Helvellaceae	Cholin	
Hippocastanaceae	Cholin	
Hydnaceae	Cholin Guanidin	Trimethylamin
Hygrophoraceae	Cholin Ethanolamin	Glucosamin und/oder Galactosamin
Iridaceae	Hordenin Isobutylamin Methylamin	2-Methylbutylamin Spermidin Spermin
Juglandaceae	Cholin Spermidin	Spermin Tyramin
Juncaceae	Ethanolamin	
Labiatae	Cholin Ethanolamin Leonurin	Methylamin Trimethylamin Tyramin
Lactobacteriaceae	Acetylcholin n-Amylamin n-Butylamin t-Butylamin Cholin Diethylamin Di-isobutylamin Di-isopropylamin Dimethylamin Di-n-propylamin Ethylamin	Isoamylamin Isobutylamin Isopropylamin Isopropyl-n-butylamin Methylamin β-Phenylethylamin Spermidin Spermin Triethylamin Trimethylamin Tripropylamin
Laminariaceae	Cholin Ethanolamin	Methylamin Trimethylamin
Lauraceae	Atherosperminin Cholin Cryptopleurospermin	Dopamin Tyramin
Lecanoraceae	Cholin	Ethanolamin
Leguminosae	Agmatin Alkaloid a Alkaloid b Cadaverin Candicin Cassaidin Cassain Cassamidin Cassamin Cholin Corynein Coumidin Coumingin Diethylamin β,β-Dimethylacrylyl- cassain Dimethylamin N,N-Dimethyl-3,4-di- methoxyphenylethyl- amin Dopamin Dopamin-3-O-glykosid Epinin Erythroplamin	Homoveratrylamin Hordenin 19-Hydroxycassain 4-Hydroxygalegin Isoamylamin Isobutylamin Isopentenylputrescin Isopropylamin Ivorin Methylamin N-Methylmezcalin N-Methyl-β-phenylethyl- amin N-Methyltyramin Noradrenalin Norcassamidin Norerythrosthaldin Norerythrosthamin Nor-Macromerin β-Phenylethylamin 1,3-Propandiamin n-Propylamin Pterogynin Putrescin

	Erythrophleguin	Spermidin
	Ethanolamin	Spermin
	Ethylamin	Sphaerophysin
	Galegin	Trimethylamin
	Guanidin	Tyramin
	n-Hexylamin	Zimtsäure-dimethyl- aminoethanolester
Liliaceae	Cholin	Ethanolamin
	Demecolcin	Methylamin
	Desacetylcolchicein	N-Methyldemecolcin
	Desacetylcolchicin	Octopamin
	2-Desmethyldemecolcin	Speciosin
	3-Desmethyldemecolcin	Tyramin
	2-Desmethyldesacetyl- colchicin	
Linaceae	Agmatin	Putrescin
	Cholin	Spermidin
	Ethanolamin	Spermin
Loranthaceae	Acetylcholin	Propionylcholin
	Cholin	Tyramin
	$\beta$ -Phenylethylamin	
Lycoperdaceae	Ethanolamin	Isoamylamin
Lythraceae	Cholin	
Magnoliaceae	Candicin	Salicifolin
	Cholin	Tyramin
Malpighiaceae	Cholin	
Malvaceae	Cholin	Glucosamin
	Dimethylamin	$\beta$ -Phenylethylamin
	L-Ephedrin	Trimethylamin
	Ethanolamin	
Melanosporaceae	Cholin	1,3-Propandiamin
	2-Dimethylaminoethanol	Spermidin
	2-Methylaminoethanol	
Menyanthaceae	Cholin	
Micrococcaceae	Ethylamin	Methylamin
	n-Hexylamin	$\beta$ -Phenylethylamin
	Isobutylamin	
Monimiaceae	Atherosperminin	Cholin
Moraceae	Acetylcholin	Synephrin
	Cholin	Trimethylamin
	Muscarin	
Moringaceae	Benzylamin	
Mucoraceae	Cholin	
Musaceae	1-Adrenalin	Noradrenalin
	Cholin	L-Norephedrin
	Dopamin	Tyramin
	Ethanolamin	
Mycobacteriaceae	Ethylamin	$\beta$ -Phenylethylamin
	Isobutylamin	
Myrtaceae	Cholin	
Nyctaginaceae	Cholin	Dopamin
Nymphaeaceae	Isoamylamin	Methylamin
	Isobutylamin	

Oleaceae	Cholin	
Onagraceae	Cholin Ethanolamin	Isoamylamin
Orchidaceae	Cholin Dendrowardin N,N-Dimethyl- $\beta$ -phenyl-ethylamin Ethanolamin 6-Hydroxynobilin Kuramerin	N-Methyl- $\beta$ -phenyl-ethylamin Nobilin bzw. Nobilonin Phenylethyltrimethylammoniumsalz Pierardin
Oscillatoriaceae	Cholin	
Oxalidaceae	Ethanolamin	
Palmae	Cholin	Putrescin
Papaveraceae	Cholin Ethanolamin Methylamin	Nudicaulin Tyramin
Parmeliaceae	Cholin	
Parvobacteriaceae	Putrescin Spermidin	Spermin
Passifloraceae	Cholin	Noradrenalin
Pedaliaceae	Cholin	
Peltigeraceae	Cholin	
Phallaceae	Cholin Dimethylamin Ethanolamin Ethylamin Isoamylamin	Methylamin $\beta$ -Phenylethylamin Putrescin Trimethylamin Tyramin
Phylloporaceae	Hordenin Methylamin	Trimethylamin
Physaraceae	Putrescin	Spermidin
Pinaceae	Cholin Spermidin	Spermin
Piperaceae	Dopamin	
Plantaginaceae	Cholin	
Plocamiaceae	Methylamin	Trimethylamin
Plumbaginaceae	Trimethylamin	
Polygonaceae	Ethanolamin	Isoamylamin
Polypodiaceae	Cholin	
Polyporaceae	Cholin Dimethylamin Ethanolamin Ethylamin Glucosamin und/oder Galactosamin Guanidin Hordenin	Isoamylamin Methylamin N-Methyltyramin $\beta$ -Phenylethylamin n-Propylamin Putrescin Trimethylamin Tyramin
Polytrichaceae	Ethanolamin	
Portulacaceae	Dopamin	Noradrenalin
Potamogetonaceae	Ethanolamin	
Primulaceae	Acetylcholin Cholin	Ethanolamin

Pseudomonadaceae	2-Aminoacetophenon 2-Hydroxyputrescin Isoamylamin Isobutylamin	Methylguanidin Putrescin Spermidin
Pucciniaceae	Spermidin	
Punctariaceae	Isoamylamin Methylamin	Trimethylamin
Ranunculaceae	Cholin Dopamin Ethanolamin Methylamin Noradrenalin	Thaliothuberin Thaliglucin Thaliglucinon Thaliscin Tyramin
Resedaceae	o-Hydroxybenzylamin	o-( $\alpha$ -L-Rhamnopyrano- syloxy)-benzylamin
Rhamnaceae	Cholin	
Rhizophyllidaceae	Ethylamin Isoamylamin Isobutylamin Methylamin	$\beta$ -Phenylethylamin n-Propylamin Trimethylamin
Rhodomelaceae	Cholin Ethylamin Isoamylamin Isobutylamin	Methylamin $\beta$ -Phenylethylamin n-Propylamin Trimethylamin
Rhodophyllaceae	Cholin	
Rhodophyllidaceae	Cholin Ethylamin Isoamylamin Isobutylamin	Methylamin $\beta$ -Phenylethylamin n-Propylamin Trimethylamin
Rhodymeniaceae	Cholin	
Rocellaceae	Cholin	
Rosaceae	Acetylcholin n-Butylamin Cholin Dimethylamin Ethanolamin Ethylamin n-Heptylamin n-Hexylamin Isoamylamin Isobutylamin	Isopropylamin Methylamin L-Norephedrin $\beta$ -Phenylethylamin n-Propylamin Spermidin Spermin Trimethylamin Tyramin
Rubiaceae	Cholin Ethanolamin	Isoamylamin Tetramethylputrescin
Russulaceae	Acetylcholin Cholin Dimethylamin Ethanolamin	Isoamylamin Methylamin Trimethylamin
Rutaceae	Candicin Cholin Corynein N,N-Dimethyl-4-meth- oxyphenylethylamin Guanidin Hordenin Isoamylamin $\beta$ -O-Methylsynephrin	N-Methyltyramin L-Norephedrin Octopamin Putrescin Spermidin Spermin Synephrin Tyramin



Saccharomycetaceae	Cholin 1,3-Propandiamin Spermidin	Spermin Tyramin
Salicaceae	Spermidin	Spermin
Santalaceae	Ethanolamin Homospermidin	Putrescin
Sapindaceae	Cholin	
Saxifragaceae	Methylamin β-Phenylethylamin Putrescin	Spermidin Spermin
Sclerodermataceae	Cholin Ethanolamin	Methylamin
Scrophulariaceae	Acetylcholin Cholin	Ethanolamin Ethylamin
Scytonemataceae	Cholin	
Solanaceae	Acetylcholin Agmatin n-Amylamin n-Butylamin t-Butylamin Cadaverin Cholin Di-n-butylamin Di-sec.-butylamin Diethylamin Dimethylamin Di-n-propylamin Dopamin Ethanolamin Ethylamin n-Heptylamin n-Hexylamin 9α-Hydroxy-25- isojurubidin 9α-Hydroxy-jurubidin Isoamylamin Isobutylamin Isojuripidin Isojurubidin	Isopropylamin Jurubidin Jurubin Methylamin Methyl-n-butylamin 2-Methylbutylamin Methylethylamin Methyl-isoamylamin Methyl-isobutylamin Methyl-isopropylamin Noradrenalin L-Norephedrin Octopamin n-Octylamin β-Phenylethylamin n-Propylamin n-Propyl-isopropylamin Putrescin Spermidin Spermin Tetramethylputrescin Trimethylamin Tyramin
Sphaerophoraceae	Cholin	
Sporobolomycetaceae	Cholin	
Staphyleaceae	Isoamylamin Isobutylamin	Methylamin 2-Methylbutylamin
Sterculiaceae	Cholin Isoamylamin	β-Phenylethylamin
Stictaceae	Cholin Dimethylamin	Methylamin Trimethylamin

## Streptomycetaceae

## ADOT

Angolamycin  
 Antibiotikum 66-40-B  
 Antibiotikum 66-40-D  
 Antibiotikum A-396-I  
 Antibiotikum G-148  
 Antibiotikum J1-20-A  
 Antibiotikum J1-20-B  
 Antibiotikum NK-1001  
 Antibiotikum NK-1003  
 Antibiotikum NK-1012-1  
 Antibiotikum NK-1012-2  
 Antibiotikum SF-733  
 Antibiotikum SF-837-A<sub>2</sub>  
 Antibiotikum SF-837-A<sub>3</sub>  
 Antibiotikum SF-837-A<sub>4</sub>  
 Antibiotikum SS-56-A  
 Antibiotikum SS-56-B  
 Antibiotikum SS-56-C  
 Antibiotikum YC-17  
 Antibiotikum YL-704-A  
 Antibiotikum YL-704-B<sub>1</sub>  
 Antibiotikum YL-704-C<sub>2</sub>  
 Antibiotikum YL-704-W<sub>1</sub>  
 Antibiotikum YL-704-W<sub>2</sub>  
 Carbomycin  
 Cirramycin-A<sub>1</sub>  
 Cirramycin-B<sub>1</sub>  
 Daunomycin  
 Destomycin-A  
 Destomycin-B  
 Destomycin-C  
 Dihydrostreptomycin  
 Erythromycin-A  
 Erythromycin-B  
 Espinomycin-A<sub>2</sub>  
 Garamin  
 Gentamycin-A<sub>1</sub>  
 Gentamycin-A<sub>2</sub>  
 Gentamycin-A<sub>3</sub>  
 Gentamycin-B<sub>3</sub>  
 Gentamycin-B<sub>1</sub>  
 Gentamycin-C<sub>1</sub>  
 Gentamycin-C<sub>1</sub>  
 Gentamycin-C<sub>1a</sub>  
 Gentamycin-C<sub>2</sub>  
 Gentamycin-C<sub>2b</sub>  
 Gentamycin-X<sub>2</sub>  
 Hygromycin-B<sub>2</sub>  
 $\beta$ -Iso-rhodomycin-II  
 Kanamycin-A  
 Kanamycin-B  
 Kanamycin-C  
 Leucomycin-A<sub>1</sub>  
 Leucomycin-A<sub>3</sub>  
 Leucomycin-A<sub>4</sub>  
 Leucomycin-A<sub>5</sub>  
 Leucomycin-A<sub>6</sub>  
 Leucomycin-A<sub>7</sub>

Leucomycin-A<sub>8</sub>  
 Leucomycin-A<sub>9</sub>  
 Leucomycin-U  
 Leucomycin-V  
 Lividamin  
 Lividomycin-A  
 Lividomycin-B  
 Magnamycin-B  
 Mannosidohydroxy-  
   streptomycin  
 Mannosidostreptomycin  
 Mannosylparomomycin  
 Maridomycin-I  
 Maridomycin-II  
 Maridomycin-III  
 Maridomycin-IV  
 Maridomycin-V  
 Maridomycin-VI  
 Maridomycin-G  
 Megalomycin-A  
 Megalomycin-B  
 Megalomycin-C<sub>1</sub>  
 Megalomycin-C<sub>2</sub>  
 Methymycin  
 Narbomycin  
 Nebramin  
 Neomethymycin  
 Neomycin-A  
 Neomycin-B  
 Niddamycin  
 Oleandomycin  
 Oxystreptomycin  
 Paromamin  
 Paromomycin-I  
 Paromomycin-II  
 Pikromycin  
 Platenomycin  
 $\beta$ -Rhodomycin-I  
 $\gamma$ -Rhodomycin-I  
 $\beta$ -Rhodomycin-II  
 $\gamma$ -Rhodomycin-II  
 $\gamma$ -Rhodomycin-III  
 $\gamma$ -Rhodomycin-IV  
 Rhodomycin-X  
 Rhodomycin-Y)  
 Rosamycin  
 Sisomycin  
 Spectinomycin  
 Spiramycin-A  
 Spiramycin-B  
 Spiramycin-C  
 Streptomycin  
 Tobramycin  
 Trehalosamin  
 Tylosin  
 Validamycin-A  
 Validamycin-B  
 Verdamicin

## Strophariaceae

Cholin  
 Isoamylamin

## Tamariaceae

$\beta$ -Phenylethylamin

## Taxaceae

L-Ephedrin  
 Spermidin

Methylamin  
 $\beta$ -Phenylethylamin

Spermin



Teloschistaceae	Cholin	
Theaceae	Cholin Diethylamin Ethylamin Galegin Guanidin Isoamylamin	Isobutylamin Methylamin Methylguanidin n-Propylamin Trimethylamin
Thelephoraceae	Cholin	
Tiliaceae	Cholin	Putrescin
Tilletiaceae	Ethanolamin	Trimethylamin
Tremellaceae	Cholin	
Tricholomataceae	Cholin Ethanolamin Glucosamin und/oder Galactosamin	Isoamylamin Muscarin $\beta$ -Phenylethylamin
Tuberculariaceae	Cholin	
Ulmaceae	Ethanolamin	
Ulvaceae	Cholin Guanidin Isoamylamin	Methylamin Trimethylamin
Umbelliferae	Acetylcholin Cholin Dimethylamin Galactosamin Glucosamin Isoamylamin	Isobutylamin Isopropylamin Methylamin Prangosin n-Propylamin Trimethylamin
Umbilicariaceae	Cholin	
Urticaceae	Acetylcholin	Cholin
Usneaceae	Cholin	
Ustilaginaceae	Agmatin Cholin Ethanolamin Ethylamin Guanidin	Isoamylamin Putrescin Spermidin Trimethylamin
Valerianaceae	Cholin	
Verbenaceae	Dopamin	n-Heptylamin
Vitaceae	Cholin	
Zingiberaceae	Cholin	

Verzeichnis der Abkürzungen

- A Anderson-Nr.  
 ATCC American Type Culture Collection  
 CCA Culture Collection of Algae, Indiana Univ., Bloomington  
 CMI Commonwealth Mycological Institute  
 CDC Center for Disease Control stocks-no.  
 DAOM Plant Research Institute, Department of Agriculture, Ottawa  
 DCM Department of Clinical Microbiology, Jerusalem, Israel  
 F1 ursprüngliche Bezeichnung von Wayne Howe (Entomology Research Division, ARS, USDA) für eine California-Auslese  
 F2 Bezeichnung durch die Alfalfa-Conference für eine Klonauslese in Lahontan; ursprünglich in Nevada mit N-97 bezeichnet  
 IFO Institute for Fermentation, Osaka  
 LSHTM London School of Hygiene and Tropical Medicine  
 MCRL Microbial Chemistry Research Laboratory der Tanabe Seiyaku Co., Ltd.  
 MHUW Mycological Herbarium, Univ. of Washington  
 NCDC National Communicable Disease Center  
 NCIB National Collection of Industrial Bacteria, Torrey Research Station, Aberdeen  
 NRRL Northern Utilization Research and Development Division, U.S. Department of Agriculture, Peoria, Ill.  
 UG Organ.-Chem. Institut der Univ. Göttingen  
 VPI Virginia Polytechnic Institute, Anaerobe Laboratory strain-no.
- D. Droge  
 g. getrocknet  
 + als Gemisch untersucht  
 / getrennt untersucht
- +) Ma-Huang hat die Stammpflanze *Ephedra sinica* Stapf und *E. equisetina* Bunge (871) bzw. *E. shennungiana* Tang n. sp. (342). Nach der Chinese Materia Medica, Peking (1959/60), wird zwischen Ts'ao Ma-huang (Herbaceous E.; *E. sinica* Stapf), Mu Ma-huang (Wood E.; *E. equisetina* Bunge) und Chung Ma-huang (Intermediate E.; *E. intermedia* Schrenk & Meyer) unterschieden (433). Auf dem chinesischen Markt besteht Chuan Mahuang aus *E. sinica* und Shan Mahuang aus *E. distachya* nebst einem geringen Anteil an *E. equisetina* (566).

Literatur

- 1 Abdel-Wahab, S. M., Hilal, S. H., El-Keiy, M. A., Egypt. pharm. Bull. 42 (1960) 4, S. 9; Chem. Abstr. 57 (1962) 17 073 h
- 2 Abduasimov, Ch. A., Junusov, S. Ju., Chim. Prir. Soedin. (Taškent) 3 (1967) S. 64
- 3 Abdusamatov, A., Abduasimov, Ch. A., Junusov, S. Ju., Uzbeks. Chim. Ž. 6 (1962) 1, S. 45
- 4 Ackermann, D., Schütze, H., Arch. Hyg. 73 (1911) S. 145
- 5 Adams, H. R., Camp, B. J., Toxicon 4 (1966) 2, S. 85; Chem. Abstr. 65 (1966) 12 562 d
- 6 Aguilar-Santos, G., Philippine J. Sci. 94 (1965) S. 217
- 7 Aguilar-Santos, G., Librea, J. R., Santos, A. C., Philippine J. Sci. 96 (1967) S. 399
- 8 Agurell, S., Experientia 25 (1969) S. 1132
- 9 Agurell, S., Lloydia 32 (1969) S. 40
- 10 Agurell, S., Lloydia 32 (1969) S. 206
- 11 Agurell, S., Bruhn, J. G., Lundström, J., Svensson, U., Lloydia 34 (1971) S. 183
- 12 Agurell, S., Bruhn, J. G., Sheth, K., 4. Internationales Symposium Biochemie und Physiologie der Alkaloide, 1969, S. 275; Chem. Abstr. 77 (1972) 98 787
- 13 Agurell, S., Lundström, J., Masoud, A., J. pharmac. Sci. 58 (1969) S. 1413
- 14 Ahmad, K., Karim, M. A., De, H. N., Indian J. med. Res. 41 (1953) S. 441
- 15 Akahosi, Moroi, Nagasski Igakhai Zossi 16 (1938) S. 1791; zit. v. Marquardt, P., Falk, H. (679)
- 16 Akita, E., Tsuruoka, T., Ezaki, N., Niida, T., J. Antibiotics 23 (1970) S. 173
- 17 Alberti, C., Boll. chim. Farm. 78 (1939) S. 477; Chem. Abstr. 34 (1940) 1 127
- 18 Aljukina, L. S., Klyshev, L. K., Kunajeva, R., Izvest. Akad. Nauk Kazachskoj SSR Ser. Bot. (1960) 1, S. 33
- 19 Allayarov, K. H., Abduazimov, Ch. A., Probl. Osvoeniya Pustyn (1970) 1, S. 83; Chem. Abstr. 75 (1971) 148 488
- 20 Alles, G. A., Privatmitt., zit. v. Anderson, E. F. (25)
- 21 Alles, G. A., Fairchild, M. D., Jensen, M., J. med. pharm. Chem. 3 (1961) S. 323
- 22 Altamura, M. R., Robbins, F. M., Andreotti, R. E., Long, L., Jr., Hasselstrom, T., J. agric. Food Chem. 15 (1967) S. 1040
- 23 Altman, R. F. A., Rubber Chem. Technol. 14 (1941) S. 664
- 24 Ames, B. N., Dubin, D. T., Rosenthal, S. M., Science 127 (1958) S. 814
- 25 Anderson, E. F., Amer. J. Bot. 49 (1962) S. 619
- 26 Anderson, Kulp, J. biol. Chemistry 50 (1922) S. 448
- 27 Anderson, J. N., Martin, R. O., Phytochemistry 12 (1973) S. 443
- 28 Appel, W., Werle, E., Arzneimittelforsch. 9 (1959) S. 22
- 29 Applewhite, P. B., Phytochemistry 12 (1973) S. 191

- 30 Arai, S., Suzuki, H., Fujimaki, M., Sakurai, Y., *Agric. biol. Chem.* 30 (1966) S. 863
- 31 Arcamone, F., Bizioli, F., *Gazz. chim. ital.* 87 (1957) S. 896; *Chem. Abstr.* 52 (1958) 4 503
- 32 Arcamone, F., Cassinelli, G., D'Amico, G., Orezzi, P., *Experientia* 24 (1968) S. 441
- 33 Arcamone, F. u. Mit., *J. Amer. chem. Soc.* 86 (1964) S. 5334
- 34 Arndt, R. R., Kruger, P. E. J., *Tetrahedron Letters* (1970) S. 3237
- 35 Arya, V. P., *J. sci. ind. Res., Sect. B* 21 (1962) S. 381
- 36 Asbun, W. L., *Diss. Abstr.* 24 (1964) S. 4415
- 37 Atal, C. K., Sood, S. P., *J. Pharm. Pharmacol.* 16 (1964) S. 627
- 38 Audette, R. C. S., Bolan, J., Vijayanagar, H. M., Bilous, R., Clark, K., *J. Chromat.* 43 (1969) S. 295
- 39 Audette, R. C. S., Vijayanagar, H. M., Bolan, J., Clark, K. W., *Canad. J. Chem.* 48 (1970) S. 149
- 40 Aurich, H., *Nahrung* 4 (1960) S. 31
- 41 Awad, A. T., *Diss. Abstr.* 27 B (1967) S. 4460
- 42 Aylward, F., Showler, A. J., *J. Sci. Food Agric.* 13 (1962) S. 492
- 43 Babo, L., von, Hirschbrunn, M., *Liebigs Ann. Chem.* 84 (1852) S. 10
- 44 Bachrach, U., Cohen, I., *J. gen. Microbiol.* 26 (1961) S. 1
- 45 Bacq, Z. M.; *Chem. Zbl.* (1938) II, 3256
- 46 Badger, G. M., Christie, B. J., Rodda, H. J., *Austral. J. Chem.* 16 (1963) S. 734
- 47 Bagni, N., *Experientia* 22 (1966) S. 732
- 48 Bagni, N., *G. Bot. Ital.* 101 (1967) S. 81
- 49 Bagni, N., *G. Bot. Ital.* 102 (1968) S. 67
- 50 Bagni, N., *New Phytologist* 69 (1970) S. 159
- 51 Bagni, N., Calderera, C. M., Moruzzi, G., *Experientia* 23 (1967) S. 139
- 52 Balenović, K., Cerar, D., Gaspert, B., Galijan, T., *Arhiv Kemiju* 27 (1955) S. 107
- 53 Bard, L., Zellner, J., *Monatsh. Chem.* 44 (1923) S. 9
- 54 Barger, G., *J. chem. Soc.* 95 (1909) S. 1123
- 55 Barger, G., Dale, H. H., *Biochem. J.* 2 (1907) S. 240
- 56 Barger, G., Dale, H. H., *Naunyn-Schmiedebergs Arch. exper. Pathol. Pharmacol.* 61 (1909) S. 113
- 57 Barger, G., Dale, H. H., *J. Physiol.* 38 (1909) S. 77
- 58 Barger, G., Dale, H. H.; *Chem. Zbl.* (1909) II, 1761
- 59 Bartarelli, J. M., *Boll. chim. farmac.* 105 (1966) S. 787
- 60 Barthel, A., Reuter, G., *Pharmazie* 23 (1968) S. 26
- 61 Bast, E., *Arch. Mikrobiol.* 79 (1971) S. 7
- 62 Basu, N. K., Singh, H., *J. Amer. pharmaceut. Assoc., sci. Ed.* 45 (1956) S. 598

- 63 Bauch, R., Seidlein, H.-J., Valentin, J., *Pharmazie* 14 (1959) S. 582
- 64 Bauer, K., Benfey, B., *Naturwissenschaften* 37 (1950) S. 139
- 65 Bauerova, O., Voticky, Z., *Pharmazie* 28 (1973) S. 212
- 66 Bayer, I., Katona, K., Tardos, L., *Naturwissenschaften* 45 (1958) S. 629
- 67 Bayer, I., Katona, K., Tardos, L., *Acta pharmaceut. hung.* 28 (1958) S. 164
- 68 Baytop, T., Ozcobek, G., *Istanbul Univ. Eczac. Fak. Mecmuasi* 6 (1970) S. 21; *Chem. Abstr.* 74 (1971) 1 029
- 69 Baytop, T., Ozcobek, G., *Istanbul Univ. Eczac. Fak. Mecmuasi* 7 (1971) S. 77; *Chem. Abstr.* 77 (1972) 72 583
- 70 Beitter, A., *Diss. Straßburg, 1900*; zit. v. Chevalier, J. (183)
- 71 Beitter, A., *Arch. Pharm.* 239 (1901) S. 17
- 72 Below, L. E., Leung, A. Y., McLaughlin, J. L., Paul, A. G., *J. pharmac. Sci.* 57 (1968) S. 515
- 73 Benedict, R. G., Stodola, F. H., Shotwell, O. L., Borud, A. M., Lindenfelser, L. A., *Science* 112 (1950) S. 77
- 74 Berg, W., *Diss. München, 1938*; zit. v. Ulschmid, L. (1178)
- 75 Bergy, M. E., Eble, T., Herr, R. R., *Antibiotics and Chemotherapy* 11 (1961) S. 61
- 76 Bernal-Santos, R. M., *Philippine J. Sci.* 96 (1967) S. 411
- 77 Bertho, A., *Liebigs Ann. Chem.* 555 (1944) S. 214, *Chem. Ber.* 80 (1947) S. 316; zit. v. Korte, F., Korte, I. (573)
- 78 Bevan, C. W. L., Ogan, A. U., *J. west. african. sci. Assoc.* 9 S. 1; *Biol. Abstr.* 47 (1966) 64 398
- 79 Bhatnagar, J. K., Handa, S. S., Duggal, S. C., *Planta med.* 20 (1971) S. 156
- 80 Bick, I. R. C., Douglas, G. K., *Austral. J. Chem.* 18 (1965) S. 1997
- 81 Bick, I. R. C., Douglas, G. K., *Phytochemistry* 5 (1966) S. 197
- 82 Bickel, H., Gäumann, E., Hütter, R., Sackmann, W., Vischer, E., Voser, W., Wettstein, A., Zähler, H., *Helv. chim. Acta* 45 (1962) S. 1396
- 83 Biedermann, E., Bräuniger, H., *Pharmazie* 27 (1972) S. 782
- 84 Bielineska-Czarnecka, M., *J. Sci. Food Agric.* 14 (1963) S. 527
- 85 Birdsall, J. J., Derse, P. H., Teply, L. J., *J. Amer. dietet. Assoc.* 38 (1961) S. 555
- 86 Bisset, N. G., *Ann. Bogorienses* 3 (1958) 1, S. 165
- 87 Black, O. F., Kelly, J. W., *Amer. J. Pharmacy* 99 (1927) S. 748
- 88 Blackwell, B., Marley, E., Mabbitt, L. A., *Lancet* (1965) S. 940
- 89 Blagowestschenski, A. W., *Biochem. Z.* 157 (1925) S. 201
- 90 Blomqvist, L., Brandänge, S., Gawell, L., Leander, K., Luning, B., *Acta chem. scand.* 27 (1973) S. 1439
- 91 Böhm, R., *Arch. Pharmaz.* 222 (1884) S. 159; zit. v. Klein, G., Linser, H. (547)
- 92 Böhm, R., *Naunyn-Schmiedebergs Arch. exp. Pathol. Pharmakol.* 19 (1885) S. 60; zit. v. Klein, G., Linser, H. (547)



- 93 Böhm, R., Naunyn-Schmiedebergs Arch. exp. Pathol. Pharmakol. 19 (1885) S. 78; zit. v. Klein, G., Linser, H. (547)
- 94 Böhm, R., Naunyn-Schmiedebergs Arch. exp. Pathol. Pharmakol. 19 (1885) S. 89; zit. v. Sabalitschka, T. H. (912)
- 95 Böhm, R., Külz, E., Naunyn-Schmiedebergs Arch. exp. Pathol. Pharmakol. 19 (1885) S. 87; zit. v. List, P. H., Hetzel, H. (646)
- 96 Bogs, H.-U., Bogs, U., Pharmazie 22 (1967) S. 54
- 97 Bogs, U., Bremer, D., Pharmazie 26 (1971) S. 410
- 98 Boit, H.-G., Ergebnisse der Alkaloid-Chemie bis 1960, Berlin, 1961
- 99 Boit, H.-G., Döpke, W., Naturwissenschaften 47 (1960) S. 159
- 100 Bollinger, H., Eugster, C. H., Helv. chim. Acta 54 (1971) S. 1332
- 101 Borkowski, B., Olszak, M., Kortus, M., Poznańskie Towarzystwo Przyjaciół Nauk, Wydział lekarski, Prace Komisji farmac. 4 (1966) S. 15
- 102 Boruttau, H., Cappenberg, H., Arch. Pharmaz. 259 (1921) S. 33
- 103 Bouquet, A., Trav. Doc. ORSTROM (1972) S. 112; Chem. Abstr. 78 (1973) 121 363
- 104 Bouquet, A., Cavé, A., Cavé, A., Paris, R.-R., C. R. hebdom. Séances Acad. Sci., Sér. C 271 (1970) S. 1100
- 105 Bouquet, A., Fournet, A., Plant. Med. Phytotherapy 6 (1972) S. 149; Biol. Abstr. 56 (1973) 44 842
- 106 Brady, L. R., Tyler, V. E., Jr., Plant Physiol. 33 (1958) S. 334
- 107 Braga, D. L., McLaughlin, J. L., Planta med. 17 (1969) S. 87
- 108 Brieger, L., Berliner klin. Wochenschr. 24 (1887) S. 819
- 109 Brieger, L., Hoppe-Seyler's Z. physiol. Chem. 11 (1887) S. 184
- 110 Briner, G. P., Grasmanis, V. O., Nature 202 (1964) S. 359
- 111 Brockmann, H., Fortschr. Chem. org. Naturstoffe 21 (1963) S. 121
- 112 Brockmann, H., Bauer, K., Naturwissenschaften 37 (1950) S. 492
- 113 Brockmann, H., Bauer, K., Borchers, I., Chem. Ber. 84 (1951) S. 700
- 114 Brockmann, H., Borchers, I., Chem. Ber. 86 (1953) S. 261
- 115 Brockmann, H., Henkel, W., Naturwissenschaften 37 (1950) S. 138
- 116 Brockmann, H., Henkel, W., Chem. Ber. 84 (1954) S. 284
- 117 Brockmann, H., Patt, P., Chem. Ber. 88 (1955) S. 1455
- 118 Brockmann, H., Spohler, E., Waehneltdt, T., Chem. Ber. 96 (1963) S. 2925
- 119 Brockmann, H., Waehneltdt, T., Naturwissenschaften 48 (1961) S. 717
- 120 Brockmann, H., Waehneltdt, T., Niemeyer, J., Tetrahedron Letters (1969) S. 415
- 121 Broda, B., Andrzejewska, E., Farmacja polska 22 (1966) S. 181
- 122 Brooker, S. E., Harkiss, K. J., Planta med. 26 (1974) S. 305
- 123 Brooks, J. B., Cherry, W. B., Thacker, L., Alley, C. C., J. infect. Diseases 126 (1972) S. 143

- 124 Brooks, J. B., Moore, W. E. C., *Canad. J. Microbiol.* 15 (1969) S. 1433
- 125 Brooks, J. B., Moos, C. W., Dowell, V. R., *J. Bacteriol.* 100 (1969) S. 528
- 126 Brown, J. K., Malone, M. H., Stuntz, D. E., Tyler, V. E., Jr., *J. pharmac. Sci.* 51 (1962) S. 853
- 127 Brown, K. S., Jr., Kupchan, S. M., *J. Amer. chem. Soc.* 84 (1962) S. 4590
- 128 Brown, K. S., Jr., Kupchan, S. M., *Tetrahedron Letters* (1964) S. 2895
- 129 Brown, K. S., Jr., Kupchan, S. M., *J. Amer. chem. Soc.* 86 (1964) S. 4414 u. 4430
- 130 Brown, S. D., Hodkins, J. E., Reinecke, M. G., *J. org. Chemistry* 37 (1972) S. 773
- 131 Brown, S. D., Massingill, J. L., Jr., Hodgkins, J. E., *Phytochemistry* 7 (1968) S. 2031
- 132 Brufani, M., Keller-Schierlein, W., *Helv. chim. Acta* 49 (1966) S. 1962
- 133 Bruhn, J. G., Agurell, S., *J. pharmac. Sci.* 63 (1974) S. 574
- 134 Bruhn, J. G., Bruhn, C., *Econ. Bot.* 27 (1973) S. 241
- 135 Bruhn, J. G., Holmstedt, B., *Econ. Bot.* 28 (1974) S. 353
- 136 Buchheim, R., *Naunyn-Schmiedebergs Arch. exp. Pathol. Pharmacol.* 8 (1875) S. 1; zit. v. Gröger, D., Mothes, U. (367)
- 137 Buelow, D. W., Gisvold, O., *J. Amer. pharmac. Assoc., sci. Edit.* 33 (1944) S. 270
- 138 Burger, O. I., Hauge, S. M., *Soil Sci.* 72 (1951) S. 303
- 139 Burnell, R. H., Soucy, M., *Phytochemistry* 11 (1972) S. 1853
- 140 Buschmann, E., *Arch. Pharmaz.* 257 (1919) S. 82
- 141 Bush, L., *Beitr. Tabakforsch.* 5 (1970) S. 275; zit. v. Singer, G. M., Lijinsky, W. (1033)
- 142 Bush, L. P., Sims, J. L., Atkinson, W. O., *Canad. J. Plant Sci.* 50 (1970) S. 289
- 143 Butt, V. S., James, W. O., *Pharmaz. Zentralhalle Deutschland* 96 (1957) S. 190
- 144 Bygdeman, S., *Ark. Kemi* 16 (1961) S. 247
- 145 Cais, M., Ginsburg, D., Mandelbaum, A., *Tetrahedron* 31 (1975) S. 2727
- 146 Calame, J. P., nach einer Privatmitt. v. Arigoni, D.; zit. v. Stauffacher, D. (1060)
- 147 Calame, J. P., Arigoni, D., *Chimica* 18 (1964) S. 185
- 148 Calastreme Cortejarena, A. M., *Rev. invest. agric.* 5 (1951) S. 375; *Chem. Abstr.* 49 (1955) 11 787
- 149 Calhoun, W. K., Bechtel, W. G., Bradley, W. B., *Cereal Chem.* 35 (1958) S. 350
- 150 Callow, R. K., Gulland, J. M., Virden, C. J., *J. chem. Soc.* (1931) S. 2138; zit. v. Chen, K. K. (181)
- 151 Cambiaghi, S., Dradi, E., Longo, R., *Ann. Chimica* 61 (1971) S. 99
- 152 Camp, B. J., Adams, R., Dollahite, J. W., *Ann. New York Acad. Sci.* 111 (1964) S. 744

- 153 Camp, B. J., Lyman, C. M., J. Amer. pharmac. Assoc., sci. Edit. 45 (1956) S. 719
- 154 Camp, B. J., Norvell, M. J., Econ. Bot. 20 (1966) S. 274
- 155 Cappenberg, H., Chem. Zbl. (1920) IV, S. 378
- 156 Cappenberg, H., Chem. Zbl. (1935) I, S. 924
- 157 Carboni, S., Ricerca sci. 11 (1940) S. 754; Chem. Abstr. 35 (1941) 1 578
- 158 Carles, J., C. R. hebd. Séances Acad. Sci., Sér. D 266 (1968) S. 2078
- 159 Carracido, J. R., Madinaveitia, A., An. Soc. españ. Fisica Quim. 2 19 (1921) S. 148; Chem. Zbl. (1921) III, S. 486
- 160 Carter, H. E., Clark, R. K., Jr., Dickman, S. R., Loo, Y. H., Skell, P. S., Strong, W. A., J. biol. Chemistry 160 (1945) S. 337; zit. v. Karrer, W. (498)
- 161 Cassan, Etude sur le Camphorosma monspeliacum, Montpellier, 1901; zit. v. Wehmer, C. (1210)
- 162 Castelli, A., Rossoni, C., Experientia 24 (1968) S. 1119
- 163 Castoldi, C., Boll. chim. farmac. 91 (1952) S. 431; Chem. Zbl. (1954) 9578
- 164 Catalfomo, P., Eugster, C. H., Helv. chim. Acta 53 (1970) S. 848
- 165 Cavé, A., Trav. Lab. Matière méd. Pharmac. galénique Fac. Pharmac. Paris 47 (1962) 1, S. 1; Chem. Zbl. (1966) 7-1426
- 166 Cavé, A., Paris, R.-R., Planta med. Phytotherap. 6 (1972) S. 66; Chem. Abstr. 77 (1972) 58 834
- 167 Cavé, A., Potier, P., Le Men, J., Bull. Soc. chim. France (1964) S. 2415
- 168 Cavé, A., Potier, P., Le Men, J., Bull. Soc. chim. France (1965) S. 2502
- 169 Cavé, A., Potier, P., Le Men, J., Ann. pharmac. franç. 25 (1967) S. 107
- 170 Chakravarti, R. N., Bull. Calcutta School Trop. Med. 3 (1955) S. 162; Chem. Abstr. 50 (1956) 16 891
- 171 Chapman, A. C., J. chem. Soc. 105 (1914) S. 1895
- 172 Chatterjee, A., Banerji, J., Indian J. Chem. 10 (1972) S. 1197
- 173 Chatterjee, A., Das, B., Chem. and Ind. (1959) S. 1445
- 174 Chatterjee, A., Das, B., Abstracts of papers presented at I. U. P. A. C. Symposium, Australia (1960) S. 12; zit. v. Goutarel, R. (354)
- 175 Chatterjee, A., Mukherjee, K. S., Chem. and Ind. (1966) S. 769
- 176 Chattopadhyay, H., Banerjee, S., Food Res. 16 (1951) S. 230
- 177 Chávezt, Bol. Soc. quim. Perú 3 (1937) S. 198; zit. v. Boit, H.-G. (98)
- 178 Chen, zit. v. Qazilbash, N. A. (860)
- 179 Chen, A. L., Stuart, E. H., Chen, K. K., J. Amer. pharmac. Assoc. 20 (1931) S. 339; zit. v. Karrer, W. (498)
- 180 Chen, C.-N. R., Diss., Ohio State Univ., 1972, Diss. Abstr. Int., B. 33 (1973) S. 5367
- 181 Chen, K. K., The Alkaloids 5 (1955) S. 230



- 182 Chesher, G. B., Collier, H. O. J., *J. Physiology* 130 (1955) S. 41 P
- 183 Chevalier, J., *Bull. Sci. pharmacol.* 18 (1911) S. 264 u. 270; *Chem. Zbl.* (1912) I, S. 371
- 184 Chichiro, V. E., *Sbornik Naučnych Trud., Centr. Aptechn. Naučno-Issled. Inst.* 4 (1963) S. 130; *Chem. Abstr.* 61 (1964) 9 777 b
- 185 Chopra, Ghosh, Dutt, *Indian J. med. Res.* 15 (1928) S. 889; *zit. v. Boit, H.-G.* (98)
- 186 Chou, J. *biol. Chemistry* 70 (1926) S. 108
- 187 Chun Yu Lin, R., *Brit. J. Pharmacol. Chemotherapy* 10 (1955) S. 247
- 188 Ciamician, G., Ravenna, C., *Atti Reale Accad. naz. Lincei* 20 (1911) S. 614; *Chem. Abstr.* 5 (1911) 3 466
- 189 Ciamician, G., Ravenna, C., *Atti Reale Accad. naz. Lincei* 29 (1920) S. 417
- 190 Ciamician, G., Ravenna, C., *Gazz. chim. ital.* 51 (1921) I, S. 208
- 191 Cielens, E., *Uč. Zap. Latv. Gos. Univ.* 672 (1965) S. 121; *Chem. Abstr.* 66 (1967) 62 655
- 192 Clarke, R. L., *Phytochemistry* 10 (1971) S. 851
- 193 Clewer, H. W. B., Green, S. J., Tutin, F., *J. chem. Soc.* 107 (1915) S. 835
- 194 Clifford, Fargher, J. *Textile Inst.* 14 (1923) S. 117; *zit. v. Power, F. B., Chesnut, V. K.* (848)
- 195 Coffey, G. L., Anderson, L. E., Fisher, M. W., Galbraith, M. M., Hillegas, A. B., Kohberger, D. L., Thompson, P. E., Westen, K. S., Ehrlich, J., *Antibiotics and Chemotherapy* 9 (1959) S. 730
- 196 Cohen, S. S., Lichtenstein, J., *J. biol. Chemistry* 235 (1960) S. 2112
- 197 Cooke, R. G., Haynes, H. F., *Austral. J. Chem.* 7 (1954) S. 99
- 198 Corbaz, R., Ettliger, L., Gäumann, E., Keller, W., Kradolfer, F., Kyburz, E., Neipp, L., Prelog, V., Reusser, R., Zähler, H., *Helv. chim. Acta* 38 (1955) S. 935
- 199 Corbaz, R., Ettliger, L., Gäumann, E., Keller-Schierlein, W., Neipp, L., Prelog, V., Reusser, P., Zähler, H., *Helv. chim. Acta* 38 (1955) S. 1202
- 200 Corral, R. A., Orazi, O. O., Petruccelli, F., de, *Experientia* 25 (1969) S. 1020
- 201 Corral, R. A., Orazi, O. O., Pizzorno, M. T., *An. Asoc. quim. argent.* 58 (1970) S. 285; *Chem. Abstr.* 74 (1971) 121 355
- 202 Correale, P., Cortese, E., *Naturwissenschaften* 41 (1954) S. 139
- 203 Correale, P., Cortese, I., *Naturwissenschaften* 40 (1953) S. 57
- 204 Cortés, M., Garbarino, J. A., Cassels, B. K., *Phytochemistry* 11 (1972) S. 849
- 205 Coulsen, J. F., Griffin, W. J., *Planta med.* 16 (1968) S. 174
- 206 Covelio, M., Capone, A., *Farm. sci. e Tec.* 5 (1950) S. 684; *Chem. Abstr.* 45 (1951) 3 999
- 207 Crawford, A. C., Watanabe, W. K., *J. biol. Chemistry* 19 (1914) S. 303, 24 (1916) S. 169; *zit. v. Boit, H.-G.* (98)

- 208 Cromwell, B. T., *Biochem. J.* 37 (1943) S. 722; *Chem. Zbl.* (1945) I, S. 1503
- 209 Cromwell, B. T., *Biochem. J.* 45 (1949) S. 84
- 210 Cronlund, A., *Dtsch. Apotheker-Ztg.* 112 (1972) S. 1308
- 211 Cronlund, A., *Planta med.* 24 (1973) S. 371
- 212 Cronlund, A., *Acta pharmac. Suecia* 10 (1973) S. 507
- 213 Cronlund, A., Sandberg, F., *Acta pharmac. Suecia* 8 (1971) S. 351; *Biol. Abstr.* 53 (1972) 44 796
- 214 Crosby, D. M., McLaughlin, J. L., *Lloydia* 36 (1973) S. 416
- 215 Dadoun, H., Cavé, A., Goutarel, R., *Ann. pharmac. franc.* 31 (1973) S. 237
- 216 Dadoun, H., Conreur, C., Cavé, A., *Phytochemistry* 12 (1973) S. 923
- 217 Dässler, H.-G., Mayer, R., *Naturwissenschaften* 46 (1959) S. 448
- 218 Dakshinamutri, K., *Current Sci.* 24 (1955) S. 194
- 219 Dalma, G., *Ann. Chim. applicata* 25 (1935) S. 569; *Chem. Zbl.* (1936) I, S. 1878
- 220 Dalma, G., *Atti Congr. int. Chim.*, 10. Congr., Roma, 1938, 5 (1939) S. 294
- 221 Dalma, G., *Helv. chim. Acta* 22 (1939) S. 1497
- 222 Daniels, P. J. L., in: Mitsuhashi, S., *Drug Action and Drug Resistance in Bacteria*, Vol. 2, Baltimore, Md., 1975, S. 77; zit. in Kirk-Othmer (542)
- 223 Daniels, P. J. L., Luce, C., Nagabhushan, T. L., Jaret, R. S., Schumacher, D., Reimann, H., Ilavsky, J., *J. Antibiotics* 28 (1975) S. 35; zit. in Kirk-Othmer (542)
- 224 Daniels, P. J. L., Yehaskel, A. S., 13. Interscience Conference on Antimicrobial Agents and Chemotherapy, Washington, D. C., 1973, Paper 135; zit. in Kirk-Othmer (542)
- 225 Daniels, P. J. L., Yehaskel, A. S., Morton, J. B., 13. Interscience Conference on Antimicrobial Agents and Chemotherapy, Washington, D. C., 1973, Abstr. 137; zit. in Kirk-Othmer (542)
- 226 Das, K. G., Pillay, P. P., *J. sci. ind. Res.*, Sect. B 13 (1954) S. 602
- 227 Dasgupta, B., *J. Inst. Chemists* 39 (1967) S. 62
- 228 Dasgupta, B., Basu, K., *Experientia* 26 (1970) S. 477
- 229 Da Silva, E. J., Jensen, A., *J. Sci. Food Agric.* 22 (1971) S. 308
- 230 Daves, D. H., Greeves, D., Mallams, A. K., Morton, J. B., Tkach, R. T., *J. chem. Soc. Perkin Trans.* (1975) S. 1814; zit. in Kirk-Othmer (542)
- 231 Deleano, N. T., *Hoppe-Seyler's Z. physiol. Chem.* 80 (1912) S. 79; zit. v. Wehmer, C. (1210)
- 232 Demaree, G. E., Tyler, V. E., Jr., *J. Amer. pharmac. Assoc.*, sci. Edit. 45 (1956) S. 421
- 233 Dessaignes, M., *C. R. hebd. Séances Acad. Sci.* 33 (1851) S. 358
- 234 Dessaignes, M., *Liebigs Ann. Chem.* 81 (1852) S. 106; zit. v. Karrer, W. (498)
- 235 Dhamachari, B., *Vanasarn* 15 (1957) S. 27; zit. Karrer, W. (499)

- 236 Dickel, D., Lucas, R., Macphillamy, H. B., J. Amer. chem. Soc. 81 (1959) S. 3154
- 237 Dietrich, P., Lederer, E., Winter, M., Stoll, M., Helv. chim. Acta 47 (1964) S. 1581
- 238 Dingerdissen, J. J., McLaughlin, J. L., Lloydia 36 (1973) S. 419
- 239 Dingerdissen, J. J., McLaughlin, J. L., J. pharmac. Sci. 62 (1973) S. 1663
- 240 Dion, H. W., Woo, P. W. K., Bartz, Q. R., J. Amer. chem. Soc. 84 (1962) S. 880
- 241 Djerassi, C., Bowers, A., Khastgir, H. N., J. Amer. chem. Soc. 78 (1956) S. 1729
- 242 Döpke, W., Müller, B., Pharmazie 22 (1967) S. 666
- 243 Döpke, W., Müller, B., Jeffs, P. W., Pharmazie 21 (1966) S. 643
- 244 Döpke, W., Müller, B., Jeffs, P. W., Naturwissenschaften 54 (1967) S. 249
- 245 Döpke, W., Müller, B., Jeffs, P. W., Pharmazie 23 (1968) S. 37
- 246 Döpke, W., Müller, B., Spiteller, G., Spiteller-Friedmann, M., Naturwissenschaften 54 (1967) S. 200
- 247 Donin, M. N., Pagano, J., Dutcher, J. D., McKee, C. M., Antibiotics Annu. (1953 - 1954) S. 179; zit. v. Djerassi, C., u. Mit. (241)
- 248 Drews, B., Just, F., Drews, H., Proc. Eur. Brew. Conv. (1957) S. 167; zit. v. Slaughter, J. C. (1038)
- 249 Drummond, J. C., Funk, C., Biochem. J. 8 (1914) S. 598; Chem. Zbl. (1916) I, 1152
- 250 Ducloux, E. H., Rev. Fac. Ci. quim., Univ. nac. La Plata 6 (1930) S. 75; zit. v. Kapadia, G. J., Fayez, M. B. E. (491)
- 251 Ducloux, E. H., Rev. farmacéutica 74 (1931) S. 87; zit v. Kapadia, G. J., Fayez, M. B. E. (491)
- 252 Dumazert, C., Ghiglione, C., Pugnet, T., Giraud, M., C. R. Séances Soc. Biol. Filiales 165 (1971) S. 919
- 253 Durand, E., Ellington, E. V., Feng, P. C., Haynes, L. J., Magnus, K. E., Philip, N., J. Pharmacy Pharmacol. 14 (1962) S. 562
- 254 Dutta, T., Bull. Reg. Res. Lab. Jammu, India 1 (1963) S. 178; Chem. Abstr. 60 (1964) 9 600 d
- 255 Duval, A., Massa, V., Susplugas, P., Trav. Soc. Pharm. Montpellier 31 (1971) S. 229; Chem. Abstr. 76 (1972) 83 544
- 256 Dziejdzianowicz, W., Roczniki Technol. Chem. Żywności 6 (1960) S. 67
- 257 Edwards, O. E., Handa, K. L., Canad. J. Chem. 39 (1961) S. 1801
- 258 Egan, R. S., De Vault, R. L., Mueller, S. L., Levenberg, M. I., Sinclair, A. C., Stanaszek, R. S., J. Antibiotics 28 (1975) S. 29
- 259 Eijk, J. L., van; Chem. Abstr. 46 (1952) 9 262; zit. v. Karrer, W. (498)
- 260 Eijk, J. L., van, Pharmac. Weekbl. 92 (1957) S. 581
- 261 Eijk, J. L., van, Pharmac. Weekbl. 97 (1962) S. 107
- 262 Einleger, J., Fischer, J., Zellner, J., Mh. Chem. 44 (1923) S. 277

- 263 Einleger, J., Fischer, J., Zellner, J., S.-B. Akad. Wiss. Wien, math.-naturwiss. Kl., Abt. II b 132 (1923) S. 263; zit. v. Wehmer, C. (1210)
- 264 Elander, M., Leander, K., Acta chem. scand. 25 (1971) S. 717
- 265 Elander, M., Leander, K., Lüning, B., Acta chem. scand. 23 (1969) S. 2177
- 266 El-Dakhakhny, M., Planta med. 13 (1965) S. 23
- 267 Elkiey, M. A., Karawya, M. S., Ghourab, M. G., J. pharmac. Sci. U. A. R. 9 (1968) S. 159; zit. v. Qédan, S. (862)
- 268 Emde, H., Arch. Pharmaz. 268 (1930) S. 85
- 269 Emmelin, N., Feldberg, W., J. Physiology 106 (1947) S. 440
- 270 Emmelin, N., Feldberg, W., New Phytologist 48 (1949) S. 143
- 271 Engel, B. G., Tondeur, R., Experientia 4 (1948) S. 430
- 272 Engel, B. G., Tondeur, R., Helv. chim. Acta 32 (1949) S. 2364
- 273 Engel, R. W., J. Nutrit. 25 (1943) S. 441
- 274 Engeland, R., Kutscher, F., Zbl. Physiol. 24 (1910) S. 479 u. 589; zit. v. Gröger, D., Mothes, U. (367)
- 275 Erspamer, V., Falconier, G., Naturwissenschaften 39 (1952) S. 431
- 276 Esdorn, I., Planta med. 2 (1954) S. 145
- 277 Eugster, C. H., Helv. chim. Acta 39 (1956) S. 1002
- 278 Eugster, C. H., Helv. chim. Acta 40 (1957) S. 886
- 279 Eugster, C. H., Naturwissenschaften 55 (1968) S. 306
- 280 Eugster, C. H., Müller, G., Helv. chim. Acta 42 (1959) S. 1189
- 281 Eugster, C. H., Schleusener, E., Helv. chim. Acta 52 (1969) S. 708
- 282 Ewins, A. J., Biochem. J. 8 (1914) S. 44; zit. v. Karrer, W. (498)
- 283 Fahrig, C., Naunyn-Schmiedebergs Arch. exp. Pathol. Pharmakol. 88 (1920) S. 227; zit. v. Eugster, C. H. (277)
- 284 Falkiner, M. J., Faux, A. F., Loder, J. W., Nearn, R. H., Austral. J. Chem. 28 (1975) S. 645
- 285 Faugeras, G., Plant Med. Phytother. 1 (1967) S. 87; Chem. Abstr. 68 (1968) S. 905
- 286 Faugeras, G., Debelmas, J., Paris, R.-R., C. R. hebd. Séances Acad. Sci., D 264 (1967) S. 1864
- 287 Faugeras, G., Dillemann, G., Ann. pharmac. franç. 18 (1960) S. 465
- 288 Faugeras, G., Paris, R., Meyruey, M. H., Ann. pharmac. franç. 21 (1963) S. 675
- 289 Feinberg, C., Herrmann, J., Röglspurger, L., Zellner, J., Mh. Chem. 44 (1923) S. 261
- 290 Fell, K. R., Peck, J. M., Planta med. 16 (1968) S. 411
- 291 Fell, K. R., Ramsden, D., J. Pharmacy Pharmacol. 18 (1966) S. 126 S
- 292 Feng, C.-T., Read, B. E., Chin. J. Physiol. 2 (1928) S. 87
- 293 Feng, P. C., Haynes, L. J., Magnus, K. E., Nature 191 (1961) S. 1108
- 294 Fernandes, L., Husson, H. P., Potier, P., Le Men, J., C. R. hebd. Séances Acad. Sci., Sér. C 264 (1967) S. 2165



- 295 Fernández, P. L., Velásquez, F. V., Arch. Inst. Farmacol. exp. Med. 16 (1964) S. 27; Chem. Zbl. (1966) 9-1655
- 296 Ferrari, C., Farm. Sci. e tec. 5 (1950) S. 544; zit. v. Markovic, O., Ditterová, V. ( 678)
- 297 Feyertag, E., Zellner, J., Mh. Chem. 47 (1926) S. 601
- 298 Fiedler, U., Hildebrand, G., Neu, R., Arzneimittel-Forsch. 3 (1953) S. 436
- 299 Fischer, B., Pharmaz. Ztg. 33 (1888) S. 72
- 300 Fitzgerald, J. S., Austral. J. Chem. 17 (1964) S. 160
- 301 Flückiger, F. A., Gerock, J. A., Pharmac. J. 18 (1887) S. 221; zit. v. Cais, M. u. Mit. (145)
- 302 Fowden, L., Done, J., J. exp. Bot. 5 (1954) S. 305
- 303 Foy, J. M., Parratt, J. R., J. Pharmacy Pharmacol. 12 (1960) S. 360
- 304 Fränkel, S., Scharf, A., Biochem. Z., 126 (1921/22) S. 273
- 305 Frencel, I., Dissertat. pharmac. 18 (1966) S. 381
- 306 Freudweiler, R., Pharmac. Acta Helvetiae 7 (1932) S. 116
- 307 Fried, J., Stavely, H. E., J. Amer. chem. Soc. 74 (1952) S. 5461
- 308 Friedrich-Fiechtl, J., Spiteller, G., Chem. Ber. 104 (1971) S. 3535
- 309 Friedrichs, O., von, Arch. Pharmaz. 257 (1919) S. 288
- 310 Fröschl, N., Zellner, J., Mh. Chem. 50 (1928) S. 201
- 311 Frolova, V. I., Rosenfeld, G. S., Listvinova, S. N., Antibiotiki (Originale) 16 (1971) S. 687
- 312 Frydman, B., Deulofeu, V., Tetrahedron 18 (1962) S. 1063
- 313 Fujita, E., Tomimatsu, T., J. pharmac. Soc. Japan 79 (1959) S. 1252
- 314 Funk, Chem. Zbl. (1912) I, S. 1239
- 315 Furumai, T., u. Mit., J. Antibiotics 27 (1974) S. 95; zit. in Kirk-Othmer (542)
- 316 Gabel, Ju. O., Kiprijanow, G. I., Ukrain. Chem. Z. 4 (1929) Tech. Pt. 45; zit. v. Bush, L. P. u. Mit. (142)
- 317 Gadamer, J., Arch. Pharmaz. 235 (1897) S. 44, Ber. dtsh. chem. Ges. 30 (1897) S. 2328
- 318 Gaiind, K. N., Juneja, T. R., Res. Bull. Panjab Univ. (N. S.) 21 (1970) S. 67
- 319 Gambhir, S. S., Sanyal, A. K., Sen, S. P., Das, P. K., Indian J. med. Res. 54 (1966) S. 1053
- 320 Genest, K., Hughes, D. W., Rice, W. B., J. pharmac. Sci. 57 (1968) S. 331
- 321 Gerber, E., Arch. Pharmaz. 241 (1903) S. 270
- 322 Gewitz, H.-S., Völker, W., Z. Naturforsch. 16 b (1961) S. 559
- 323 Gharbo, S. A., Beal, J. L., Schlessinger, R. H., Cava, M. P., Svoboda, G. H., Lloydia 28 (1965) S. 237
- 324 Gharbo, S. A., Habib, A.-A. M., Lloydia 32 (1969) S. 503
- 325 Ghosal, S., Banerjee, P. K., Austral. J. Chem. 22 (1969) S. 2029
- 326 Ghosal, S., Banerjee, P. K., Rathore, R. S., Bhattacharya, S. K., 4. Internationales Symposium Biochemie und Physiologie

- der Alkaloide, 1969, S. 107; Chem. Abstr. 77 (1972) 118 146
- 327 Ghosal, S., Bhattacharya, S. K., *Planta med.* 22 (1972) S. 434
- 328 Ghosal, S., Chauhan, R. B. P. S., Mehta, R., *Phytochemistry* 14 (1975) S. 830
- 329 Ghosal, S., Dutta, S. K., *Phytochemistry* 10 (1971) S. 195
- 330 Ghosal, S., Mazumder, U. K., *Phytochemistry* 10 (1971) S. 2840
- 331 Ghosal, S., Mazumder, U. K., Bhattacharya, S. K., *J. pharmac. Sci.* 60 (1971) S. 1209
- 332 Ghosal, S., Mazumder, U. K., Mehta, R., *Phytochemistry* 11 (1972) S. 1863
- 333 Ghosal, S., Mehta, R., *Phytochemistry* 13 (1974) S. 1628
- 334 Ghosal, S., Singh, S., Bhattacharya, S. K., *Planta med.* 19 (1971) S. 279
- 335 Ghosal, S., Srivastava, R. S., *Phytochemistry* 12 (1973) S. 193
- 336 Ghosal, S., Srivastava, R. S., *J. pharmac. Sci.* 62 (1973) S. 1555
- 337 Ghosal, S., Srivastava, R. S., Banerjee, P. K., Dutta, S. K., *Phytochemistry* 10 (1971) S. 3312
- 338 Ghosal, S., Srivastava, R. S., Bhattacharya, S. K., Debnath, P. K., *Planta med.* 23 (1973) S. 321
- 339 Ghosh, S., Chopra, R. N., Dutt, A., *Chem. Zbl.* (1936) I, 1916; zit. v. Karrer, W. (498)
- 340 Ghosh, S., Dutt, A., *J. Indian chem. Soc.* 7 (1930) S. 825; *Chem. Zbl.* (1931) I, S. 1463
- 341 Ghosh, S., Ghosh, N. N., *J. Indian chem. Soc.* 5 (1928) S. 477; *Chem. Zbl.* (1928) II, S. 2258
- 342 Gilg, E., Schürhoff, P. N., *Arch. Pharmaz.* 268 (1930) S. 233
- 343 Gjerstad, G., Modak, A., *Quart. J. Crude Drug Res.* 8 (1968) S. 1141; *Chem. Abstr.* 68 (1968) 89 842
- 344 Glick, D., *Cereal Chem.* 22 (1945) S. 95
- 345 Gmelin, R., Kjaer, A., *Phytochemistry* 9 (1970) S. 667
- 346 Gmelin, R., Möhrle, H., *Arch. Pharmaz.* 300 (1967) S. 176
- 347 Görte; zit. v. Nottbohm, F. E., Mayer, F. (779)
- 348 Görte, *Diss. Erlangen*, 1902; zit. v. Nottbohm, F. E., Mayer, F. (779)
- 349 Golovnya, R. V., Zhuravleva, J. L., Kharatyan, S. G., *J. Chromatogr.* 44 (1969) S. 262
- 350 Gordon, S. M., *Amer. J. Pharmacy Sci. support. publ. Health* 100 (1928) S. 433; *Chem. Zbl.* (1928) II, S. 2078
- 351 Goris, A., Larssonneau, A., *Bull. Sci. Pharmacol.* 28 (1921) S. 499
- 352 Goutarel, R., *Tetrahedron* 14 (1961) S. 126
- 353 Goutarel, R., *Tetrahedron* 14 (1961) S. 136
- 354 Goutarel, R., *Les alcaloides stéroïdiques des Apocynacées*, Paris, 1964
- 355 Grabarczyk, H., Gertig, H., *Ann. Pharmaceutici* 7 (1969) S. 105
- 356 Gran, L., *Lloydia* 36 (1973) S. 209
- 357 Graziano, M. N., Ferraro, G. E., Coussio, J. D., *Lloydia* 34 (1971) S. 453

- 358 Graziano, M. N., Widmer, G. A., Coussio, J. D., Juliani, R., *Lloydia* 30 (1967) S. 242
- 359 Greco, A., *Boll. Soc. ital. Biol. sperim.* 16 (1941) S. 294; *Chem. Abstr.* 40 (1946) 6 564
- 360 Greimer, K., *Arch. Pharmaz.* 238 (1900) S. 505
- 361 Grein, A., Spalla, C., Di Marco, A., Canevazzi, G., *Giorn. Microbiol.* 11 (1963) S. 109; zit. v. Arcamone, F. u. Mit. (33)
- 362 Greshoff, Diss. Jena, 1887; zit. v. Wehmer, C. (1210)
- 363 Griess, P., Harrow, G., *Ber. dtsh. chem. Ges.* 18 (1885) S. 717
- 364 Griffin, W. J., *Australas. J. Pharmacy* 48 (1967) S. 20; *Chem. Abstr.* 67 (1967) 79 622
- 365 Griffin, W. J., Phippard, J. H., Culvenor, C. C. J., Loder, J. W., Nearn, R., *Phytochemistry* 10 (1971) S. 2793
- 366 Griffiths, L. A., *Nature* 184 (1959) S. 58
- 367 Gröger, D., Mothes, U., *Pharmazie* 11 (1956) S. 324
- 368 Grundy, W. E., Schenck, J. R., Clark, R. K., Jr., Hargie, M. P., Richards, R. K., Sylvester, J. C., *Arch. Biochemistry* 28 (1950) S. 150; zit. v. Karrer, W. (498)
- 369 Grzybek, J., *Dissertat. pharmac.* 21 (1969) S. 253
- 370 Güven, K. C., Bora, A., Sunam, G., *Eczacilik Bul.* 11 (1969) S. 177; *Chem. Abstr.* 72 (1970) 118 579
- 371 Guirard, B. M., Snell, E. E., *J. Bacteriol.* 88 (1964) S. 72
- 372 Gulland, J. M., Virden, C. J., *J. chem. Soc.* (1931) S. 2148
- 373 Guyomarc'h, C., *C. R. heb. Séances Acad. Sci., Sér. D* 272 (1971) S. 3041; *Chem. Abstr.* 75 (1971) 72 606
- 374 Haagen-Smit, A. J., Olivier, M., *Privatmitt.*; zit. v. Reti, L. (879)
- 375 Haas, P., Hill, T. G., *Ann. Botany* 47 (1933) S. 55; zit. v. Steiner, M., Hartmann, T. (1066)
- 376 Härtel, R., Döpke, W., *Tetrahedron Letters* (1971) S. 2741
- 377 Hagemann, G., Nominé, G., Pénasse, L., *Ann. pharmac. franç.* 16 (1958) S. 585
- 378 Hall, M. O., Nye, J. F., *J. Amer. chem. Soc.* 81 (1959) S. 2275
- 379 Hamill, R. L. u. Mit., *Antibiotics and Chemotherapy* 11 (1961) S. 328; zit. in Kirk-Othmer (542)
- 380 Hammouda, F. M., Rizk, A. M., Abdel-Gawad, M. M., *Current Sci.* 40 (1971) S. 631
- 381 Hamonniere, M., Leboeuf, M., Cavé, A., Paris, R.-R., *Plant med. Phytother.* 9 (1975) S. 296; *Biol. Abstr.* 62 (1976) 9 784
- 382 Hanna, W. F., Vickery, H. B., Pucher, G. W., *J. biol. Chemistry* 97 (1932) S. 351
- 383 Harada, T., Spencer, B., *J. gen. Microbiol.* 22 (1960) S. 520
- 384 Hardwick, B. C., Axelrod, B., *Plant Physiol.* 44 (1969) S. 1745
- 385 Harkiss, K. J., *Planta med.* 20 (1971) S. 108
- 386 Harkiss, K. J., *Phytochemistry* 10 (1971) S. 2849
- 387 Harkiss, K. J., *Planta med.* 21 (1972) S. 84
- 388 Harkiss, K. J., Timmins, P., *Planta med.* 23 (1973) S. 342



- 389 Harmsen, E., Naunyn-Schmiedebergs Arch. exp. Pathol. Pharmakol. 50 (1903) S. 361; zit. v. Eugster, C. H. (277)
- 390 Harnack, Naunyn-Schmiedebergs Arch. exp. Pathol. Pharmakol. 4 (1875) S. 168; zit. v. King, H. (538)
- 391 Harnack, Jber. Fortschr. Chemie (1876) S. 803; zit v. Klein, G., Linser, H. (547)
- 392 Hart, N. K., Johns, S. R., Lamberton, J. A., Chem. Commun. (1969) S. 1484
- 393 Hart, N. K., Johns, S. R., Lamberton, J. A., Willing, R. I., Austral. J. Chem. 23 (1970) S. 1679
- 394 Hartmann, T., Planta 66 (1965) S. 27
- 395 Hartmann, T., Experientia 23 (1967) S. 680
- 396 Hartmann, T., Z. Pflanzenphysiol. 57 (1967) S. 368
- 397 Hartmann, T., Ilert, H.-J., Steiner, M., Z. Pflanzenphysiol. 68 (1972) S. 11
- 398 Harz, Z. österr. Apotheken-Ver. 25 (1887) S. 433, 452 u. 468; zit. v. Wehmer, C. (1210)
- 399 Hashitani, Y., J. chem. Soc. Japan 41 (1920) S. 545; Chem. Abstr. 14 (1920) 3 096
- 400 Haskell, T. H., French, J. C., Bartz, Q. R., J. Amer. chem. Soc. 81 (1959) S. 3481
- 401 Haskell, T. H., Rodebaugh, R., Plessas, N., Watson, D., Westland, R. D., Carbohydr. Res. 28 (1973) S. 263
- 402 Hata, T., Omura, S., Matsumae, A., Katagiri, M., Sano, Y., Antimicrobial Agents & Chemotherapy (1967) S. 631; zit. v. Tsuruoka, T. u. Mit. (1164)
- 403 Hata, T., Sano, Y., Ohki, N., Yokohama, Y., Matsumae, A., Ito, S., J. Antibiotics, Ser. A 6 (1953) S. 87
- 404 Hatanaka, S.-I., Terakawa, H., Bot. Mag. 81 (1968) S. 259
- 405 Hedman, K., Leander, K., Luning, B., Acta chem. scand. 23 (1969) S. 3261
- 406 Heffter, A., Ber. dtsh. chem. Ges. 27 (1894) S. 2976
- 407 Heffter, A., Ber. dtsh. chem. Ges. 29 (1896) S. 216
- 408 Heirmann, P., Arch. int. Physiol. 49 (1939) S. 449; zit. v. Marquardt, P., Falk, H. (679)
- 409 Henry, Garot, J. de Pharmacie (2), 20 (1825) S. 63; zit. v. Pictet, A., Wolffenstein, R. (829)
- 410 Henry, A. J., Brit. J. Pharmacol. Chemotherapy 3 (1948) S. 187
- 411 Henry, A. J., Grindley, D. N., J. Soc. chem. Ind. 68 (1949) S. 9
- 412 Hepding, L., Wahlig, H., Arzneimittel-Forsch. 16 (1966) S. 1
- 413 Herberger, Berzelius' Jber. 12 (1831) S. 273; zit. v. Klein, G., Linser, H. (547)
- 414 Herbst, E. J., Snell, E. E., J. biol. Chemistry 176 (1948) S. 989
- 415 Herbst, E., Weaver, R. H., Keister, D. L., Arch. Biochem. Biophysics 75 (1958) S. 171
- 416 Herlem-Gaulier, D., Diss. Paris, 1967; zit. v. Khuong-Huu, F., Magdeleine, M.-J. (518)

- 417 Herlem-Gaulier, D., Khuong-Huu-Lainé, F., Stanislas, E., Goutarel, R., Bull. Soc. chim. France (1965) S. 657
- 418 Herrero-Ducloux, Rev. Fac. Ci. quim., Univ. nac. La Plata 6 (1930) S. 75
- 419 Hesse, O., Liebigs Ann. Chem. 129 (1864) S. 254
- 420 Heyl, F. W., J. Amer. chem. Soc. 41 (1919) S. 670
- 421 Heyl, F. W., Hart, M. G., Schmidt, J. M., J. Amer. chem. Soc. 40 (1918) S. 436
- 422 Highet, R. J., J. org. Chemistry 26 (1961) S. 4767
- 423 Hilkenbäumer, F., Buchloh, G., Zachariae, A., Angew. Bot. 34 (1960) S. 104
- 424 Hiwatari, Y., J. Biochemistry 7 (1927) S. 169
- 425 Hochstein, F. A., Murai, K., J. Amer. chem. Soc. 76 (1954) S. 5080
- 426 Hochstein, F. A., Schach v. Wittenau, M., Tanner, F. W., Jr., Murai, K., J. Amer. chem. Soc. 82 (1960) S. 5934
- 427 Hodgkins, J. E., Brown, S. D., Massingill, J. L., Tetrahedron Letters (1967) S. 1321
- 428 Holtz, P., Janisch, H., Naunyn-Schmiedebergs Arch. exp. Pathol. Pharmacol. 187 (1937) S. 336; Chem. Zbl. (1939) I, 4630
- 429 Horii, S., Kameda, Y., Kawahara, K., J. Antibiotics 25 (1972) S. 48
- 430 Horii, S., Nogami, I., Mizokami, N., Arai, Y., Yoneda, M., Antimicrobial Agents & Chemotherapy 5 (1974) S. 578
- 431 Hornemann, K. M. K., Neal, J. M., McLaughlin, J. L., J. pharmac. Sci. 61 (1972) S. 41
- 432 Horowitz, N. H., J. biol. Chemistry 162 (1946) S. 413; zit. v. Karrer, W. (498)
- 433 Hu, S.-Y., Econ. Bot. 23 (1969) S. 350
- 434 Huber, G., Wallhäuser, K. H., Fries, L., Steigler, A., Weidenmüller, H.-L., Arzneimittel-Forsch. 12 (1962) S. 1191
- 435 Hüttenrauch, R., Pharmazie 19 (1964) S. 697
- 436 Hughes, D. W., Genest, K., Rice, W. B., Lloydia 29 (1966) S. 328
- 437 Husson, H.-P., Fernandis, L., Potier, P., Le Men, J., Bull. Soc. chim. France (1969) S. 3162
- 438 Hyde, T. G., Proc. Roy. Soc. Edinburgh, Sect. B 65 (1954 - 55) S. 299
- 439 Ibanez, C., Ibanez, J., Medvinsky, R., Szabo, E., Colegio Farm. 9 (1952) S. 3; Chem. Abstr. 47 (1953) 3 519
- 440 Ikawa, M., J. Bacteriol. 85 (1963) S. 772
- 441 Ikawa, M., Borowski, P. T., Chakravarti, A., Appl. Microbiol. 16 (1968) S. 620
- 442 Ikawa, M., Chakravarti, A., Taylor, R. F., Canad. J. Microbiol. 18 (1972) S. 1241
- 443 Iketubosin, G. O., Mathieson, D. W., J. Pharmacy Pharmacol. 15 (1963) S. 810
- 444 Ilavsky, J., Bayan, A. P., Charney, W., Reimann, H., (Schering Corp.), USA-Pat. 3 903 072 v. 2. Sept. 1975; zit. in Kirk-Othmer (542)

- 445 Inagaki, S., J. pharmac. Soc. Japan 54 (1934) S. 147; Chem. Zbl. (1935) I, 584
- 446 Inouye, S., Shomura, T., Watanabe, H., Totsugawa, K., Niida, T., J. Antibiotics 26 (1973) S. 374
- 447 Irvine, W. J., Saxby, M. J., Phytochemistry 8 (1969) S. 473
- 448 Ishida, Y., Kozu, Y., J. appl. Mycology 3 (1949) S. 118
- 449 Israilov, I., Abduazimov, Kh. A., Yunusov, S. Ju., Doklady Akademii Nauk Uzb. SSR 22 (1965) 3, S. 18; Chem. Abstr. 63 (1965) 7 346 e
- 450 Ivanov, Ch., Yankov, L., Godišnik Vissija Chimikotehnolog. Institut 14 (1967) S. 195; Chem. Abstr. 77 (1972) 111 471
- 451 Iwasa, T., Kameda, Y., Asai, M., Horii, S., Mizuno, K., J. Antibiotics 24 (1971) S. 119
- 452 Iwasa, T., Yamamoto, H., Shibata, M., J. Antibiotics 23 (1970) S. 595
- 453 Järvinen, P. A., Ann. Med. exp. Biol. fenn., Suppl. 31 (1953) 4, S. 1; Chem. Zbl. (1954) 3740
- 454 Jahns, E., Ber. dtsh. chem. Ges. 18 (1885) S. 2520
- 455 Jahns, E., Arch. Pharmaz. 225 (1887) S. 479
- 456 Jahns, E., Arch. Pharmaz. 225 (1887) S. 483
- 457 Jahns, E., Arch. Pharmaz. 225 (1887) S. 985
- 458 Jahns, E., Ber. dtsh. chem. Ges. 23 (1890) S. 2972
- 459 Jahns, E., Ber. dtsh. chem. Ges. 26 (1893) S. 1493
- 460 Jahns, E., Arch. Pharmaz. 235 (1897) S. 151
- 461 Jaminet, F., J. Pharmac. Belgique, N. S. 8 (1953) S. 23
- 462 Jaminet, F., Pharmac. Acta Helvetiae 34 (1959) S. 571
- 463 Janot, M.-M., Cavé, A., Goutarel, R., Bull. Soc. chim. France (1959) S. 896
- 464 Janot, M.-M., Cavé, A., Goutarel, R., C. R. hebd. Séances Acad. Sci. 251 (1960) S. 559
- 465 Janot, M.-M., Devissaguet, P., Khuong-Huu, Q., Goutarel, R., Ann. pharmac. franç. 25 (1967) S. 733
- 466 Janot, M.-M., Devissaguet, P., Khuong-Huu, Q., Parello, J., Bisset, N. G., Goutarel, R., C. R. hebd. Séances Acad. Sci., Sér. C 266 (1968) S. 388
- 467 Janot, M.-M., Khuong-Huu, Q., Goutarel, R., C. R. hebd. Séances Acad. Sci. 246 (1958) S. 3076
- 468 Janot, M.-M., Khuong-Huu, Q., Goutarel, R., C. R. hebd. Séances Acad. Sci. 250 (1960) S. 2445
- 469 Janot, M.-M., Khuong-Huu, Q., Monneret, C., Kaboré, I., Hildesheim, J., Gero, S. D., Goutarel, R., Tetrahedron 26 (1970) S. 1695
- 470 Janot, M.-M., Khuong-Huu, Q., Yassi, J., Goutarel, R., Bull. Soc. chim. France (1963); zit. v. Goutarel, R. (354)
- 471 Janot, M.-M., Laine, F., Goutarel, R., Ann. pharmac. franç. 18 (1960) S. 673
- 472 Janot, M.-M., Leboeuf, M., Cavé, A., Wijesekera, R., Goutarel, R., C. R. hebd. Séances Acad. Sci., Sér. C 267 (1968) S. 1050
- 473 Janot, M.-M., Longevialle, P., Goutarel, R., (laufende Arbeiten 1960 - 1963); zit. v. Goutarel, R. (354)

- 474 Janot, M.-M., Longevialle, P., Goutarel, R., Bull. Soc. chim. France (1964) S. 2158
- 475 Janot, M.-M., Longevialle, P., Goutarel, R., Bull. Soc. chim. France (1966) S. 1212
- 476 Janot, M.-M., Monneret, C., Monseur, X., Khuong-Huu, Q., Goutarel, R., C. R. hebd. Séances Acad. Sci. 260 (1965) S. 6118
- 477 Janot, M.-M., Monneret, C., Monseur, X., Kocjan, R., Khuong-Huu, Q., Goutarel, R., Bull. Soc. chim. France (1965); zit. v. Janot, M.-M. u. Mit. (476)
- 478 Janot, M.-M., Monseur, X., Conreur, C., Goutarel, R., Bull. Soc. chim. France (1962) S. 285
- 479 Jerzmanowska, Z., Sykulska, Z., Dissertat. pharmac. 16 (1964) S. 71
- 480 Johne, S., Gröger, D., Radeaglia, R., Phytochemistry 14 (1975) S. 2635
- 481 Johns, S. R., Lamberton, J. A., Sioumis, A. A., Willing, R. J., Austral. J. Chem. 23 (1970) S. 353
- 482 Jurisson, S., Tartu Riikliku Ülikooli Toimetised (1971) S. 71; Chem. Abstr. 76 (1972) 23 018
- 483 Junusov, S. Ju., Akramov, S. T., Sidjakin, G. P., Doklady Akademii Nauk Uzb. SSR (1957) 7, S. 23; Chem. Abstr. 53 (1959) 3 606 f
- 484 Juraschewski, N. K., Ž. obšče<sup>v</sup>j Chimii 11 (1941) S. 157; Chem. Zbl. (1942) I, S. 756
- 485 Jurisson, E. E., Jurisson, S. M., Apteč<sup>v</sup>noe delo 15 (1966) 4, S. 36
- 486 Kahane, E., Simenauer, A., Bull. Soc. Chim. biol. 36 (1954) S. 837
- 487 Kanao, S., J. pharmac. Soc. Japan 48 (1928) S. 122
- 488 Kanazawa, T., Yanagisawa, T., Tamiya, H., Z. Pflanzenphysiol. 54 (1966) S. 57
- 489 Kantor, N., Selzer, G., J. pharmac. Sci. 57 (1968) S. 2170
- 490 Kapadia, G. J., Baldwin, H. H., Shah, N. J., J. Pharmacy Pharmacol. 16 (1964) S. 283
- 491 Kapadia, G. J., Fayez, M. B. E., J. pharmac. Sci. 59 (1970) S. 1702
- 492 Kapadia, G. J., Shah, N. J., Zalucky, T. B., J. pharmac. Sci. 57 (1968) S. 254
- 493 Kapadia, G. J., Vaishnav, Y. N., Fayez, M. B. E., J. pharmac. Sci. 58 (1969) S. 1157; zit. v. Kapadia, G. J., Fayez, M. B. E. (491)
- 494 Kapeller-Adler, Csató, Biochem. Z. 224 (1930) S. 379
- 495 Karawya, M. S., Elkiey, M. A., El-Moghazy, A. M., Salem, S. A., J. pharmac. Sci. UAR 11 (1970) S. 221; Chem. Abstr. 75 (1971) 137 446
- 496 Karawya, M. S., Elkiey, M. A., Ghourab, M. G., J. pharmac. Sci. UAR 9 (1968) S. 147; Chem. Abstr. 73 (1970) 117 169
- 497 Karrer, E., Bose, R. J., Warren, R. A. J., J. Bacteriol. 114 (1973) S. 1365
- 498 Karrer, W., Konstitution und Vorkommen der organischen Pflanzenstoffe, Basel u. Stuttgart, 1958 u. 1976



- 499 Karrer, W., Cherbuliez, E., Eugster, C. H., Konstitution und Vorkommen der organischen Pflanzenstoffe, Ergänzungsband 1, Basel u. Stuttgart, 1977
- 500 Karsten, W., Ber. dtsh. pharmaz. Ges. 12 (1902) S. 241; Chem. Zbl. (1902) II, S. 1514
- 501 Kasai, T., Sakamura, S., J. Fac. Agric., Hokkaido Imp. Univ. 57 (1973) S. 153; Chem. Abstr. 79 (1973) 123 634
- 502 Katayama, T., Bull. Jap. Soc. Sci. Fisheries 24 (1958) S. 346
- 503 Katona, K., Acta pharmac. hung. 28 (1958) S. 245
- 504 Kavanaugh, F., Grinnan, E., Allansone, E., Tunin, D., Appl. Microbiol. 8 (1960) S. 160
- 505 Keharo, J., Plant med. Phytother. 4 (1970) S. 50; Biol. Abstr. 53 (1972) 68 423
- 506 Keil, W., Bartmann, H., Biochem. Z. 280 (1935) S. 58
- 507 Keil, W., Kritter, B., Biochem. Z. 276 (1935) S. 61
- 508 Keister, D. L., Federat. Proc. 17 (1958) S. 84
- 509 Keller, W. J., Diss. Washington, 1972; Dissertat. Abstr. Int., B. 33 (1973) 5 988
- 510 Keller, W. J., McLaughlin, J. L., J. pharmac. Sci. 61 (1972) S. 147
- 511 Keller, W. J., McLaughlin, J. L., Brady, L. R., J. pharmac. Sci. 62 (1973) S. 408
- 512 Khafagy, S. M., Metwally, A. M., Planta med. 19 (1971) S. 234
- 513 Khafagy, S. M., Sarby, N. N., Metwally, A. M., El-Naggar, S. F., Planta med. 26 (1974) S. 75
- 514 Khanna, K. L., Diss. Connecticut, 1963; zit. v. Schwarting, A. E. u. Mit. (1013)
- 515 Khodzhaev, B. U., Shakirov, R., Junusov, S. Ju., Chim. Prir. Soedin 7 (1971) S. 542; Chem. Abstr. 76 (1972) 1 792
- 516 Khodzhaev, V. G., Maekh, S. Kh., Junusov, S. Ju., Chim. Prir. Soedin 9 (1973) S. 441; Chem. Abstr. 79 (1973) 92 445
- 517 Khuong-Huu, F., Herlem-Gaulier, D., Khuong-Huu, Q., Stanislas, E., Goutarel, R., Tetrahedron 22 (1966) S. 3321
- 518 Khuong-Huu, F., Magdeleine, M.-J., Ann. pharmac. franç. 28 (1970) S. 211
- 519 Khuong-Huu, F., Magdeleine, M.-J., Santamaria, J., Goutarel, R., Phytochemistry 12 (1973) S. 1813
- 520 Khuong-Huu, F., Paris, R., Razafindrarnbao, R., Cavé, A., Goutarel, R., C. R. hebd. Séances Acad. Sci., Sér. C 273 (1971) S. 588
- 521 Khuong-Huu, Q., Diss. Paris, 1960; zit. v. Goutarel, R. (354)
- 522 Khuong-Huu, Q., Monneret, C., Kaboré, I., Choay, P., Tekam, J.-M., Goutarel, R., Bull. Soc. chim. France (1971) S. 864
- 523 Khuong-Huu, Q., Monseur, X., Truong-Ho, M., Kocjan, R., Goutarel, R., Bull. Soc. chim. France (1965) S. 3035
- 524 Khuong-Huu, Q., Yassi, J., Goutarel, R., unveröffentl.; zit. v. Khuong-Huu, Q. u. Mit. (523)
- 525 Khuong-Huu-Lainé, F., Diss. Paris, 1962; zit. v. Khuong-Huu-Lainé, F. u. Mit. (526)
- 526 Khuong-Huu-Lainé, F., Bisset, N. G., Goutarel, R., Ann. pharmac. franç. 23 (1965) S. 395

- 527 Khuong-Huu-Lainé, F., Magdeleine, M.-J., Bisset, N. G., Goutarel, R., Bull. Soc. chim. France (1966) S. 758
- 528 Khuong-Huu-Lainé, F., Milliet, A., Bisset, N. G., Goutarel, R., Bull. Soc. chim. France (1966) S. 1216
- 529 Kiesel, A., Hoppe-Seyler's Z. physiol. Chem. 120 (1922) S. 85
- 530 Kiesel, A., Hoppe-Seyler's Z. physiol. Chem. 135 (1924) S. 61
- 531 Kiesel, A., Hoppe-Seyler's Z. physiol. Chem. 149 (1925) S. 247
- 532 Kikuchi, T., Uyeo, S., Nishinaga, T., Tetrahedron Letters (1965) S. 1993
- 533 Kikuchi, T., Uyeo, S., Nishinaga, T., Tetrahedron Letters (1965) S. 3169
- 534 Kikuchi, T., Uyeo, S., Jr., Ando, M., Yamamoto, A., Tetrahedron Letters (1964) S. 1817
- 535 Kim, K.-H., J. Bacteriol. 91 (1966) S. 193
- 536 Kim, W. K., Canad. J. Bot. 49 (1971) S. 555
- 537 Kim, W. K., Canad. J. Bot. 49 (1971) S. 1119; Chem. Abstr. 75 (1971) 85 362
- 538 King, H., J. chem. Soc. 121 (1922) S. 1743
- 539 Kinumaki, A. u. Mit., J. Antibiotics 27 (1974) S. 102, 107 u. 117; zit. in Kirk-Othmer (542)
- 540 Kinumaki, A., Suzuki, M., J. Antibiotics 25 (1972) S. 480
- 541 Kinumaki, A., Suzuki, M., J. chem. Soc., Chem. Com. (1972) S. 744
- 542 Kirk-Othmer, Encyclopedia of Chemical Technology, Vol. 2 u. 3, New York, Chichester, Brisbane, Toronto, 1978
- 543 Kirkwood, S., Marion, L., J. Amer. chem. Soc. 72 (1950) S. 2522
- 544 Kiselev, V. V., Ž. obsč. Chímii 26 (1956) S. 3218
- 545 Kiselev, V. V., Menšikov, G. P., Beer, A. A., Doklady Akad. Nauk SSSR 88 (1953) S. 825
- 546 Klein, G., Boser, Sr. D., Arch. Pharmaz. 270 (1932) S. 382
- 547 Klein, G., Linser, H., Biochem. Z. 250 (1932) S. 220
- 548 Klein, G., Linser, H., Biochem. Z. 260 (1933) S. 215
- 549 Klein, G., Schlögl, S. M. C., Österr. bot. Z. 79 (1929) S. 340; zit. v. Karrer, W. (498)
- 550 Klein, G., Steiner, M., Jahrb. wiss. Bot. 68 (1928) S. 602; zit. v. List, P. H., Hetzel, H. (646)
- 551 Klein, G., Steiner, M., Jahrb. wiss. Bot. 68 (1928) S. 654; zit. v. Wehmer, C. (1210)
- 552 Klein, G., Steiner, M., Jahrb. wiss. Bot. 68 (1928) S. 656; zit. v. Wehmer, C. (1210)
- 553 Klein, G., Steiner, M., Jahrb. wiss. Bot. 68 (1928) S. 678
- 554 Klein, G., Steiner, M., Jahrb. wiss. Bot. 68 (1928) S. 692; zit. v. Wehmer, C. (1210)
- 555 Klein, G., Tauböck, Österr. bot. Z. 76 (1927) S. 195; zit. v. Wehmer, C. (1210)
- 556 Knaack, W. F., Jr., Geismann, T. A., Tetrahedron Letters (1964) S. 1381
- 557 Kobert, R.; zit. v. List, P. H., Hetzel, H. (646)

- 558 Kobert, R., St. Petersburg. med. Woch. 51 (1891) S. 463; zit. v. Eugster, C. H. (277)
- 559 Koch, K. F., Rhoades, J. A., Antimicrobial Agents & Chemotherapy (1971) S. 309; zit. in Kirk-Othmer (542)
- 560 Kögl, F., Duisberg, H., Erxleben, H., Liebigs Ann. Chem. 489 (1931) S. 156
- 561 Kögl, F., Salemink, C. A., Schouten, H., Jellinek, F., Recueil Trav. chim. Pays-Bas 76 (1957) S. 109
- 562 Kögl, F., Salemink, C. A., Schuller, P. L., Recueil Trav. chim. Pays-Bas 79 (1960) S. 278
- 563 Kohli, J. M., Zaman, A., Kidwai, A. R., Tetrahedron 23 (1967) S. 3829, Phytochemistry 10 (1971) S. 442
- 564 Kolos-Pethes, E., Marczal, G., Gyógyszerészet 10 (1966) S. 62
- 565 Kondo, S., Iinuma, K., Naganawa, H., Shimura, M., Sekizawa, Y., J. Antibiotics 28 (1975) S. 79
- 566 Konoshima, M., J. pharmac. Soc. Japan 65 (1945) 2 A, S. 7, 7/8 A, S. 1; Chem. Abstr. 45 (1951) 4 000
- 567 Konowalowa, R. A., Magidson, O. J., Arch. Pharmaz. 266 (1928) S. 449
- 568 Kordts, D., Pharmazie 15 (1960) S. 402
- 569 Kordts, D., Voigt, R., Weiss, F., Pharmazie 15 (1960) S. 586
- 570 Kordts, D., Voigt, R., Scientia pharmac. 29 (1961) S. 81
- 571 Korottschenko, N. J., Balabanowa, A. A., Hidroliznaja i Lesochim. Prom. 14 (1961) 4, S. 3; Chem. Zbl. (1963) 972
- 572 Korta, J., Acta Biol. Cracoviensia, Ser. Bot. 13 (1970) S. 143
- 573 Korte, F., Korte, I., Z. Naturforsch. 10 b (1955) S. 500
- 574 Koshiyama, H., Okanishi, M., Ohmori, T., Miyaki, T., Tsukiura, H., Matsuzaki, M., Kawaguchi, H., J. Antibiotics 16 A (1963) S. 59
- 575 Koshiyama, H., Tsukiura, H., Fujisawa, K.-I., Konishi, M., Hatori, M., Tomita, K., Kawaguchi, H., J. Antibiotics 22 (1969) S. 61
- 576 Koslova, L. M., Farmazija (Moskva) 16 (1967) 6, S. 23
- 577 Kotomska, Z., Mlodecki, H., Roczniki państwowego Zakładu Hig. 13 (1962) S. 359
- 578 Kraft, F., Arch. Pharmaz. 244 (1906) S. 336
- 579 Kranen-Fiedler, U., Arzneimittel-Forsch. 6 (1956) S. 475
- 580 Kranen-Fiedler, U., Jubiläumsschrift Dr. W. Schwabe, Karlsruhe, (o. J.), S. 64; zit. v. Bogs, U., Bremer, D. (97)
- 581 Krishna, S., Ghose, T. P., J. Soc. chem. Ind., Trans. and Commun. 48 (1929) S. 67; Chem. Zbl. (1930) II, 430
- 582 Kröner, W., Völksen, W., Ernährung, Beiheft 9 (1942) S. 48
- 583 Kubota, S., Nakajima, S., Nippon Yakubutsugaku Zasshi 11 (1930) S. 153; zit. v. Sugiura, S. u. Mit. (1089)
- 584 Kuck, A. M., Albónico, S. M., Deulofeu, V., Escalante, M. G., Chem. and Ind. (1966) S. 945
- 585 Kuck, A. M., Albónico, S. M., Deulofeu, V., Escalante, M. G., Phytochemistry 6 (1967) S. 1541
- 586 Küng, A., Hoppe-Seyler's Z. physiol. Chem. 91 (1914) S. 241



- 587 Kullnig, R. K., Rosano, C. L., Coulter, M. E., Hurwitz, C.,  
J. biol. Chemistry 248 (1973) S. 2487
- 588 Kullnig, R. K., Rosano, C. L., Hurwitz, C., Biochem. biophysic.  
Res. Commun. 39 (1970) S. 1145
- 589 Kunitomo, J., J. pharmac. Soc. Japan 81 (1961) S. 1370
- 590 Kunitomo, J., J. pharmac. Soc. Japan 82 (1962) S. 611; Chem.  
Abstr. 57 (1962) 4 760 c
- 591 Kung, H. P., Huang, W.-Y., J. Amer. chem. Soc. 71 (1949)  
S. 1836
- 592 Kunz, H., Arch. Pharmaz. 223 (1885) S. 701
- 593 Kunz, H., Arch. Pharmaz. 225 (1887) S. 461
- 594 Kunz, H., Arch. Pharmaz. 226 (1888) S. 529
- 595 Kunz-Krause, H., Arch. Pharmaz. 231 (1893) S. 613
- 596 Kunz-Krause, H., Arch. Pharmaz. 237 (1899) S. 9
- 597 Kupchan, S. M., Abushanab, E., J. org. Chemistry 30 (1965)  
S. 3931
- 598 Kupchan, S. M., Asbun, W. L., Tetrahedron Letters (1964)  
S. 3145
- 599 Kupchan, S. M., Kennedy, R. M., Schleigh, W. R., Ohta, G.,  
Tetrahedron 23 (1967) S. 4563
- 600 Kupchan, S. M., Kurosawa, E., J. org. Chemistry 30 (1965)  
S. 2046
- 601 Kupchan, S. M., Ohta, G., J. org. Chemistry 31 (1966) S. 608
- 602 Kusaka, T., Yamamoto, H., Suzuki, T., J. Takeda Res. Labor.  
29 (1970) S. 239
- 603 Kußmaul, Bornträger, Neues Jahrb. Pharm. 8 S. 222; zit. v.  
Zellner, J. (1270)
- 604 Kuttan, R., Radhakrishnan, A. N., Spande, T., Witkop, B.,  
Biochemistry 10 (1971) S. 361
- 605 Kuwata, S., J. pharmac. Soc. Japan 49 (1929) S. 100; Chem.  
Zbl. (1929) II, 1929
- 606 Kwasniewski, V., Pharmazie 13 (1958) S. 363
- 607 Kwasniewski, V., Planta med. 7 (1959) S. 35
- 608 Lábler, L., Černý, V., Chem. Listy 51 (1957) S. 2344, Collect.  
czechoslov. chem. Commun. 24 (1959) S. 370
- 609 Lábler, L., Sorm, F., Collect. czechoslov. chem. Commun. 28  
(1963) S. 2345
- 610 Larher, F., Bernard, T., C. R. hebdom. Séances Acad. Sci., Sér.  
D 270 (1970) S. 1458
- 611 Larsen, P. O., Acta chem. scand. 16 (1962) S. 1511
- 612 Larsen, P. O., Biochim. biophysica Acta 107 (1965) S. 134
- 613 Larsen, P. O., Pedersen, E., Sørensen, H., Sørup, P.,  
Phytochemistry 12 (1973) S. 2243
- 614 Laufke, R. A. F., Pharmaz. Zentralhalle Deutschland 96 (1957)  
S. 452
- 615 Leary, J. D., Lloydia 33 (1970) S. 264
- 616 Leboeuf, M., Cavé, A., Phytochemistry 11 (1972) S. 2833
- 617 Leboeuf, M., Cavé, A., Planta med. phytotherap. 8 (1974)  
S. 147; Biol. Abstr. 59 (1975) 4 175

- 618 Leboeuf, M., Cavé, A., Goutarel, R., *Ann. pharmac. franç.* 27 (1969) S. 217
- 619 Leboeuf, M., Cavé, A., Wannigama, G. P., Goutarel, R., *Phytochemistry* 11 (1972) S. 843
- 620 Lee, S. R., *Seoul Univ. J. nat. Sci., Ser. B* 7 (1958) S. 24; *Chem. Abstr.* 53 (1959) 17 255
- 621 Lee, T. M., McLaughlin, J. L., *Lloydia* 38 (1975) S. 366
- 622 Lee, T. M., West, L. G., McLaughlin, J. L., Brady, L. R., Lowe, J. L., Smith, A. H., *Lloydia* 38 (1975) S. 450
- 623 Leifertova, I., Kudrnacova, J., Brazdova, V., *Acta Fac. pharmac., Univ. Comeniana* 20 (1971) S. 57; *Chem. Abstr.* 77 (1972) 16 587
- 624 Le Men, J., *Bull. Soc. chim. France* (1960) S. 860
- 625 Le Men, J., Kan, C., Beugelmans, R., *Bull. Soc. chim. France* (1963) S. 597; zit. v. Goutarel, R. (354)
- 626 Leprince, M., *C. R. hebd. Séances Acad. Sci.* 145 (1907) S. 940
- 627 Lerch, B., Stegemann, H., *Z. Naturforsch.*, 21 b (1966) S. 216
- 628 Lichtfield, J. H., *J. Food Sci.* 29 (1964) S. 690
- 629 Lin, R. C. Y., *Brit. J. Pharmacol. Chemotherapy* 10 (1955) S. 247
- 630 Lin, R. C. Y., *Brit. J. Pharmacol. Chemotherapy* 12 (1957) S. 265
- 631 Lindberg, B., *Acta chem. scand.* 9 (1955) S. 917
- 632 Linder, R., Coustaut, D., *C. R. hebd. Séances Acad. Sci., Sér. D* 263 (1966) S. 1447; *Chem. Abstr.* 67 (1967) 44 239 b
- 633 Lindgren, J. E., Agurell, S., Lundström, J., Svensson, U., *FEBS Letters* 13 (1971) S. 21
- 634 Lindikeit, R., Jung, F., *Pharmazie* 8 (1953) S. 78
- 635 Lindsey, J. B.; zit. v. Schulze, E., Frankfurt, S. (1003)
- 636 Lindwall, O., Norin, T., Sandberg, F., Thorsén, R., *Acta pharmac. suecica* 2 (1965) S. 313
- 637 Lindwall, O., Sandberg, F., Thorsén, R., Norin, T., *Tetrahedron Letters* (1965) S. 4203
- 638 Linko, P., *Acta chem. scand.* 12 (1958) S. 101
- 639 Linko, P., Alfathan, M., Miettinen, J. K., Virtanen, A., *Acta chem. scand.* 7 (1953) S. 1310
- 640 Linskens, H. F., Kochuyt, A. S. L., So, A., *Planta* 82 (1968) S. 111
- 641 Linskens, H. F., Pfahler, P. L., *Theoret. appl. Genetics* 43 (1973) S. 49
- 642 Lippmann, E. O., v., *Ber. dtsh. chem. Ges.* 29 (1896) S. 2645
- 643 List, P. H., *Pharmazie* 13 (1958) S. 665
- 644 List, P. H., *Arch. Pharmaz.* 291 (1958) S. 502
- 645 List, P. H., *Planta med.* 6 (1958) S. 424
- 646 List, P. H., Hetzel, H., *Planta med.* 7 (1959) S. 310
- 647 List, P. H., Hetzel, H., *Planta med.* 8 (1960) S. 105
- 648 List, P. H., Menßen, H. G., *Arch. Pharmaz.* 292 (1959) S. 21
- 649 List, P. H., Menßen, H. G., *Arch. Pharmaz.* 292 (1959) S. 260
- 650 List, P. H., Müller, H., *Arch. Pharmaz.* 292 (1959) S. 777

- 651 List, P. H., Reinhard, C., Arch. Pharmaz. 295 (1962) S. 564
- 652 List, P. H., Reith, H., Arzneimittelforsch. 10 (1960) S. 34
- 653 List, P. H., Wagner, K., Arzneimittelforsch. 13 (1963) S. 36
- 654 Loder, J. W., Culvenor, C. C. J., Nearn, R. H., Russel, G. B., Stanton, D. W., Tetrahedron Letters (1972) S. 5069
- 655 Loder, J. W., Culvenor, C. C. J., Nearn, R. H., Russel, G. B., Stanton, D. W., Austral. J. Chem. 27 (1974) S. 179
- 656 Lucas, R. A., Dickel, D. F., Dziemian, R. L., Ceglowski, M. J., Hensle, B. L., MacPhillamy, H. B., J. Amer. chem. Soc. 82 (1960) S. 5688
- 657 Lundström, J., Acta pharmac. Suecica 8 (1971) S. 275; zit. v. Neal, J. M. u. Mit. (765)
- 658 Lundström, J., Acta pharmac. Suecica 8 (1971) S. 485
- 659 Lundström, J., Agurell, S., J. Chromatogr. 30 (1967) S. 271
- 660 Lundström, J., Agurell, S., J. Chromatogr. 36 (1968) S. 105
- 661 Lundström, J., Agurell, S., Tetrahedron Letters (1969) S. 3371
- 662 Lyle, R. E., Kielar, E. A., Crowder, J. R., Wildman, W. C., J. Amer. chem. Soc. 82 (1960) S. 2620
- 663 Maag, G. W., Payne, M. G., Wickham, I., Hecker, R. J., Remmenga, E. E., Harrison, E. M., J. Amer. Soc. Sugar Beet Technol. 14 (1967) S. 605; Chem. Abstr. 69 (1968) 74 469
- 664 Machida, I. u. Mit. (Nikken Chemicals Co., Ltd.), Japan Kokai 72 25 384 v. 20. 10. 1972; zit. in Kirk-Othmer (542)
- 665 Maehr, H., Schaffner, C. P., J. Amer. chem. Soc. 92 (1970) S. 1697
- 666 Mahran, G. H., Rizkallah, M. M., Saber, A. H., Bull. Fac. Pharm., Cairo Univ. 10 (1971) S. 1; Chem. Abstr. 78 (1973) 156 644
- 667 Mahran, G. H., Saber, A. H., Ahmed, M. S., Bull. Fac. Pharm., Cairo Univ. 9 (1970) S. 165; Chem. Abstr. 77 (1972) 39 096
- 668 Mahran, G. H., Saber, A. H., Khairy, N. H., J. pharmac. Sci. UAR 8 (1967) S. 101
- 669 Malone, M. H., Robichaud, R. C., Tyler, V. E., Jr., Brady, L. R., Lloydia 24 (1961) S. 204
- 670 Malone, M. H., Robichaud, R. C., Tyler, V. E., Jr., Brady, L. R., Lloydia 25 (1962) S. 231
- 671 Mamedor, G. M., Nasirova, G. I., Rastitel'nye Resursy 9 (1973) S. 57
- 672 Mann, R., Bromer, W. W., J. Amer. chem. Soc. 80 (1958) S. 2714
- 673 Mann, S., Arch. Mikrobiol. 54 (1966) S. 184; Chem. Abstr. 65 (1966) 14 127 c
- 674 Marble, V. L., Meldeen, J. C., Murray, H. C., Zscheile, F. P., Agronomy J. 51 (1959) S. 740
- 675 Marini-Bettolo, G. B., Coch Frugoni, J. A., Gazz. chim. ital. 86 (1956) S. 1324
- 676 Marino-Zucco, F., Vignolo, G., Gazz. chim. ital. 25 (1895) S. 262; zit. v. Pictet, A., (Wolffenstein, R. (829)
- 677 Marino-Zucco, F., Vignolo, G., Atti Rend. Accad. Lincei Roma 4 (1895) S. 253 u. 446; zit. v. Wehmer, C. (1210)

- 678 Markovic, O., Dittertová, V., Chem. Zvesti 9 (1955) S. 576
- 679 Marquardt, P., Falk, H., Arzneimittel-Forsch. 7 (1957) S. 203
- 680 Marquardt, P., Schumacher, H., Vogg, G., Arzneimittel-Forsch. 2 (1952) S. 301
- 681 Marshall, P. B., J. Pharmacy Pharmacol. 10 (1958) S. 781
- 682 Marshall, P. B., J. Pharmacy Pharmacol. 11 (1959) S. 639
- 683 Mašínová, V., Šantavý, F., Collect. czechoslov. chem. Commun. 19 (1954) S. 1238
- 684 Mašínová, V., Šantavý, F., Chem. Listy 48 (1954) S. 712
- 685 Masquelier, J., Oliai, M., Triaud, J., Bull. Soc. Pharmac. Bordeaux 100 (1961) S. 238; Chem. Zbl. (1963) 15 141
- 686 Massmann, W. L., Schilf, E., Pharmazie 8 (1953) S. 505
- 687 Masucci, P., Suto, K., J. Amer. pharmac. Assoc. 15 (1926) S. 748; Chem. Zbl. (1926) II, 2 823
- 688 Máthé, I., Tyihák, E., Acta pharmac. hung. 32 (1962) S. 43
- 689 Matsutani, H., Shiba, T., Phytochemistry 14 (1975) S. 1132
- 690 Maxwell, W., Amer. chem. J. 93 S. 469; zit. v. Schulze, E., Frankfurt, S. (1003)
- 691 McGuire, J. M. u. Mit., Antibiotics and Chemotherapy 11 (1961) S. 320; zit. in Kirk-Othmer (542)
- 692 McGuire, J. M., Bunch, R. L., Anderson, R. C., Boaz, H. E., Flynn, E. H., Powell, H. M., Smith, J. W., Antibiotics and Chemotherapy 2 (1952) S. 281
- 693 McGuire, T. A., Earle, F. R., J. Amer. Oil Chemists' Soc. 28 (1951) S. 328
- 694 McIlhenny, H. M., Diss. Abstr., B 28 (1967) S. 125
- 695 McLaughlin, J. L., Diss. Abstr., B (1966/67) S. 528
- 696 McLaughlin, J. L., Lloydia 32 (1969) S. 392
- 697 McLaughlin, J. L., Paul, A. G., J. pharmac. Sci. 54 (1965) S. 661
- 698 McLaughlin, J. L., Paul, A. G., Lloydia 29 (1966) S. 315
- 699 McShefferty, J., Nelson, P. F., Paterson, J. L., Stenlake, J. B., Todd, J. P., J. Pharmacy Pharmacol. 8 (1956) S. 1117
- 700 Mears, J. A., Mabry, T. J., in: Harborne, J. B., Boulter, D., Turner, B. L. (Hrsg.), Chemotaxonomy of the Leguminosae, London, New York, 1971
- 701 Mecke, W., Naunyn-Schmiedebergs Arch. exp. Pathol. Pharmacol. 175 (1934) S. 23; zit. v. Eugster, C. H. (277)
- 702 Medicus, Kobert, Z. Untersuch. Nahr.- u. Genußmittel 5 (1902) S. 1077; zit. v. Wehmer, C. (1210)
- 703 Menshikov, G. P., Rubinshtein, M. M., Ž. obščej Chimii 13 (1943) S. 801; Chem. Abstr. 39 (1945) 1 172
- 704 Menßen, H. G., Diss. Würzburg, 1958; zit. v. List, P. H., Hetzel, H. (646)
- 705 Merck, E., Merck's Jber. (1888), Nachtrag, S. 1; zit. in Merck's Jber. 41 (1927) S. 9
- 706 Merck, E.; Chem. Zbl. (1894) I, S. 470
- 707 Merlis, W. M., Ž. obščej Chimii 22 (1952) S. 347; Chem. Abstr. 46 (1952) 7 289



- 708 Merz, K. W., Bergner, K. G., Arch. Pharmaz. 278 (1940) S. 59
- 709 Metche, M., Mangelot, F., Jacquin, F., Soil Biol. Biochem. 2 (1970) S. 81; Chem. Abstr. 73 (1970) 42 400
- 710 Metwally, A. M., Saleh, M. R. I., Aggag, M., Khafagy, S. M., Planta med. 23 (1973) S. 281
- 711 Meyer, K., Bernoulli, F., Pharmac. Acta Helvetiae 36 (1961) S. 80
- 712 Miana, G. A., Khan, F. S., Phytochemistry 12 (1973) S. 2051
- 713 Michel, K. H., Sandberg, F., Acta pharmac. Suecica 5 (1968) S. 67; Chem. Abstr. 69 (1968) 25 044
- 714 Miettinen, J. K., Ann. Acad. Sci. fennicae, Sarja A II 60 (1955) S. 520; Chem. Abstr. 49 (1955) 8 405
- 715 Miller, E. R., Arch. Pharmaz. 240 (1902) S. 481
- 716 Mitchell, J. L. A., Rusch, H. P., Biochim. biophysica Acta 297 (1973) S. 503
- 717 Miura, K., Berliner klin. Wochenschr. 24 (1887) S. 707
- 718 Miyake, J. biol. Chemistry 21 (1915) S. 661
- 719 Miyake, J. Biochemistry 3 (1924) S. 176
- 720 Mohr, Z. Biol. 98 (1937) S. 120
- 721 Molinier, R., Pellegrini, M., Méd. trop. 26 (1966) S. 421; Biol. Abstr. 48 (1967) 123 928
- 722 Mollov, N. M., Thuan, Le N., Panov, P. P., Doklady Bolgarskoi Akad. Nauk 24 (1971) S. 1047; Chem. Abstr. 76 (1972) 85 970
- 723 Molnar, G., Tyihak, E., Herba hung. 5 (1966) 2/3, S. 268; Chem. Abstr. 68 (1968) 47 314
- 724 Monseur, X., Op de Beeck, F., Privatmitt.; zit. v. Goutarel, R. (354)
- 725 Mooser, Landwirtsch. Versuchsstat. 60 (1904) S. 321; zit. v. Wehmer, C. (1210)
- 726 Mori, T., Ichiyanagi, T., Kondó, H., Tokunaga, K., Oda, T., Munakata, K., J. Antibiotics 24 (1971) S. 339
- 727 Mori, T., Kyotani, Y., Watanabe, I., Oda, T., J. Antibiotics 25 (1972) S. 317
- 728 Morin, R. B., Gorman, M., Tetrahedron Letters (1964) S. 2339
- 729 Morin, R. B., Gorman, M., Hamill, R. L., Demarco, P. V., Tetrahedron Letters (1970) S. 4737
- 730 Moro, G. A., Graziano, M. N., Coussio, J. D., Phytochemistry 14 (1975) S. 827
- 731 Morris, D. R., Koffron, K. L., J. biol. Chemistry 244 (1969) S. 6094
- 732 Moruzzi, G., Calderera, C. M., Arch. Biochem. Biophysics 105 (1964) S. 209
- 733 Mosig, A., Schramm, G., Pharmazie 10 (1955) Beiheft 4, S. 29
- 734 Mosso, Riv. clin. (1891); zit. v. Beitter, A. (71)
- 735 Mothes, K., Schütte, H. R. (Hrsg.), Biosynthese der Alkaloide, Berlin, 1969
- 736 Mourgue, M., Baret, R., Dokhan, R., C. R. Séances Soc. Biol. Filiales 147 (1953) S. 1449
- 737 Mourgue, M., Dokhan, R., C. R. Séances Soc. Biol. Filiales 148 (1954) S. 1434

- 738 Müller, E., Armbrust, K., Hoppe-Seyler's Z. physiol. Chem. 263 (1940) S. 41
- 739 Müller, H., Z. Biol. 83 (1925) S. 239
- 740 Müller, J. A., Arch. Pharmaz. 270 (1932) S. 449
- 741 Muller, G., Bellet, P., Ann. pharmac. franç. 13 (1955) S. 81
- 742 Murakami, T., Mori, N., Nagasawa, M., J. pharmac. Soc. Japan 88 (1968) S. 488
- 743 Murase, M., Ito, T., Fukatsu, S., Umezawa, H., Progress in Antimicrobial and Anticancer Chemistry (Proc. of 6th Intern. Congr. Chemoth.), Vol. II, Baltimore, 1970, S. 1098; zit. v. Umezawa, S. u. Mit. (1181)
- 744 Muroi, M., Izawa, M., Asai, M., Kishi, T., Mizuno, K., J. Antibiotics 26 (1973) S. 199
- 745 Muroi, M., Izawa, M., Kishi, T., Chem. pharmac. Bull. 24 (1976) S. 450 u. 463; zit. in Kirk-Othmer (542)
- 746 Muroi, M., Izawa, M., Ono, H., Higashide, E., Kishi, T., Experientia 28 (1972) S. 501 u. 878
- 747 Murray, H. C., Zscheile, F. P., Phytopathology 46 (1956) S. 363
- 748 Nagabhushan, T. L., Daniels, P. J. L., Jaret, R. S., Morton, J. B., J. org. Chemistry 40 (1975) S. 2835
- 749 Nagabhushan, T. L., Turner, W. N., Daniels, P. J. L., Morton, J. B., J. org. Chemistry 40 (1975) S. 2830
- 750 Nagai; zit. v. Miura, K. (717)
- 751 Nagai, W., Kanao, S., J. pharmac. Soc. Japan 48 (1928) S. 101; Chem. Zbl. (1928) II, 2 553
- 752 Nagaoka, K., Demain, A. L., J. Antibiotics 28 (1975) S. 627
- 753 Nakano, T., Pharmac. Bull. 1 (1953) S. 29
- 754 Nakano, T., Pharmac. Bull. 2 (1954) S. 321
- 755 Nakano, T., Hasegawa, M., Tetrahedron Letters (1964) S. 3679
- 756 Nakano, T., Hasegawa, M., J. chem. Soc. (1965) S. 6688
- 757 Nakano, T., Terao, S., Tetrahedron Letters (1964) S. 1035
- 758 Nakano, T., Terao, S., J. chem. Soc. (1965) S. 4512
- 759 Nakano, T., Terao, S., Saeki, Y., J. chem. Soc., C (1966) S. 1412
- 760 Nakano, T., Terao, S., Saeki, Y., Jin, K. D., J. chem. Soc., C (1966) S. 1805
- 761 Nakano, T., Uchiyama, M., Pharmac. Bull. 4 (1956) S. 409
- 762 Nakazawa, K., Tanabe, K., Hitomi, H., Imanishi, M., Annu. Rep. Takeda Res. Labor. 13 (1954) S. 67; Chem. Abstr. 49 (1955) 6 369
- 763 Naumowa, I. B., Antibiotiki 6 (1961) 1, S. 29
- 764 Neal, J. M., McLaughlin, J. L., Lloydia 33 (1970) S. 395
- 765 Neal, J. M., Sato, P. T., Howald, W. N., McLaughlin, J. L., Science 176 (1972) S. 1131
- 766 Neal, J. M., Sato, P. T., Johnson, C. L., McLaughlin, J. L., J. pharmac. Sci. 60 (1971) S. 477
- 767 Neal, J. M., Sato, P. T., McLaughlin, J. L., Econ. Bot. 25 (1971) S. 382

- 768 Nellé, S., Charles, G., Cavé, A., Goutarel, R., C. R. hebdomadaire des Séances Acad. Sci., Sér. C 271 (1970) S. 153
- 769 Nencki, M., v., Korresp. f. Schw. Ärzte 16 (1886) S. 361; zit. v. Eugster, C. H. (277)
- 770 Neu, R., Fiedler, U., Naturwissenschaften 41 (1954) S. 259
- 771 Neumark, H., Nature 201 (1964) S. 527
- 772 Neurath, G., Ehmke, H., Müller, K.-H., Beitr. Tabakforsch. 2 (1964) S. 321
- 773 Neuss, N., Gorman, M., unveröffentl.; zit. v. Söti, F. u. Mit. (1053)
- 774 Neuwald, F., Arch. Pharmaz. 285 (1952) S. 459
- 775 Niida, T., Tsuruoka, T., Ezaki, N., Shomura, T., Akita, E., Inouye, S., J. Antibiotics 24 (1971) S. 319
- 776 Nishikawa, K., Miyamura, M., Hirata, Y., Tetrahedron Letters (1967) S. 2597
- 777 Norin, T., Acta chem. scand. 22 (1968) S. 2835
- 778 Norquist, D. G., McLaughlin, J. L., J. pharmac. Sci. 59 (1970) S. 1840
- 779 Nottbohm, F. E., Mayer, F., Z. Unters. Lebensmittel 63 (1932) S. 176
- 780 Nottbohm, F. E., Mayer, F., Z. Unters. Lebensmittel 63 (1932) S. 620
- 781 Novallius, Diss., Leipzig, 1928; zit. v. Klein, G., Linser, H. (547)
- 782 Nowacki, E., Przybylska, J., Hurich, J., Bull. Acad. polon. Sci., Sér. Sci. biol. 8 (1960) S. 445
- 783 Nunez-Melendez, E., Johnson, C. H., J. Amer. pharmac. Assoc., sci. Edit. 44 (1955) S. 349
- 784 Oda, T., Mori, T., Kyotani, Y., J. Antibiotics 24 (1971) S. 503
- 785 Ogan, A. U., Phytochemistry 10 (1971) S. 2544
- 786 Ogan, A. U., Planta med. 21 (1972) S. 210
- 787 Ogata, A., Nishioji, R., J. pharmac. Soc. Japan 44 (1924) 514, S. 5; Chem. Zbl. (1925) I, 1 751
- 788 Ogawa, H., Ito, T., Kondo, S. T., Inoue, S., Bull. agric. chem. Soc. Japan 23 (1959) S. 289
- 789 Ogino, C., J. Tokyo Univ. Fisheries 41 (1955) S. 107; Chem. Zbl. (1959), 6 850
- 790 Ogura, H., Otagoshi, A., Sano, Y., Hata, T., Chem. pharmac. Bull. 15 (1967) S. 682
- 791 Okamoto, T., Natsume, M., Onaka, T., Uchimaru, F., Shimizu, M., Chem. pharmac. Bull. 20 (1972) S. 418
- 792 Omura, S., Ogura, H., Hata, T., Tetrahedron Letters (1967) S. 609
- 793 Omura, S., Suzuki, Y., Nakagawa, A., Hata, T., J. Antibiotics 26 (1973) S. 794
- 794 Onaka, T., Kamata, S., Maeda, T., Kawazoe, Y., Natsume, M., Okamoto, T., Uchimaru, F., Shimizu, M., Chem. pharmac. Bull. 13 (1965) S. 745
- 795 Ono, H., Hasegawa, T., Higashide, E., Shibata, M., J. Antibiotics 26 (1973) S. 191



- 796 Orazmuradov, G. M., Karryev, M. O., *Izvest. Akad. Nauk Turkm. SSR, Ser. biol. Nauk* (1974) 6, S. 71; *Biol. Abstr.* 61 (1976) 21 444
- 797 Ostenberg, Z., *Proc. Soc. exp. Biol. Med.* 12 (1915) S. 174; *Chem. Abstr.* 11 (1917) 2 586
- 798 Ottinger, R., Chiurdoglu, G., Vandendris, J., *Bull. Soc. chim. Belges* 74 (1965) S. 198
- 799 Oury, A., Bacq, Z. M., *C. R. Séances Soc. Biol. Filiales Associées* 126 (1937) S. 1263; zit. v. Marquardt, P., Falk, H. (679)
- 800 Oury, A., Bacq, Z. M., *Arch. int. Physiol.* 47 (1938) S. 92; zit. v. Marquardt, P., Falk, H. (679)
- 801 Oury, A., Bacq, Z. M.; *Chem. Zbl.* (1940) II, 2 630; zit. v. Karrer, W. (498)
- 802 Ozeki, S., *J. pharmac. Soc. Japan* 81 (1961) S. 1706
- 803 Pagani, F., Romussi, G., *Boll. chim. farmac.* 106 (1967) S. 671; *Chem. Abstr.* 68 (1968) 46 972
- 804 Pagani, F., Romussi, G., *Farmaco, Ediz. prat.* 22 (1967) S. 771; *Chem. Abstr.* 68 (1968) 46 990
- 805 Pagano, J. F., Weinstein, M. J., McKee, C. M., *Antibiotics and Chemotherapy* 3 (1953) S. 899
- 806 Pailer, M., Kump, W. G., *Arch. Pharmaz.* 293 (1960) S. 646
- 807 Paris, R., *Bull. Sci. pharmacol.* 45 (1938) S. 543, 49 (1942) S. 33; zit. v. Bisset, N. G. (86)
- 808 Paris, R., *Ann. pharmac. franç.* 6 (1948) S. 501
- 809 Paris, R., Durand, M., Bonnet, J.-L., *Ann. pharmac. franç.* 15 (1957) S. 677
- 810 Paris, R., Moyse, H., *Bull. Narcotics* 10 (1958) 2, S. 29
- 811 Paris, R., Moyse-Mignon, H., *Ann. pharmac. franç.* 14 (1956) S. 464
- 812 Paris, R., Théallet, J.-P., *Ann. pharmac. franç.* 19 (1961) S. 20
- 813 Paris, R.-R., Saint-Firmin, A., *C. R. hebd. Séances Acad. Sci., Sér. D* 264 (1967) S. 825
- 814 Parke, Davis & Company, *Belg. Pat.* 547 976 (Oktober 1956); zit. v. Hüttenrauch, R. (435)
- 815 Parrott, W. L., Maxwell, F. G., Jenkins, J. N., Mauldin, J. K., *Ann. entomol. Soc. America* 62 (1969) S. 255
- 816 Partheil, A., *Arch. Pharmaz.* 230 (1892) S. 448
- 817 Paudler, W. W., Wagner, S., *Chem. and Ind.* (1963) S. 1693
- 818 Peck, R. L., Hoffhine, C. E., Gale, P., Folkers, K., *J. Amer. chem. Soc.* 71 (1949) S. 2590
- 819 Pehl, G., *Ing.-Arbeit, Ing.-Schule Chemie/Humboldt-Uni, Berlin, 1966*
- 820 Pei-Ken, H., Yu-Shou, F., Kuang-Cheng, H., Shui-Chi, F., Shou-Chün, L., Yu-Heng, C., *Acta bot. sinica* 15 (1973) S. 64
- 821 Pelt, J. M., Junk, M. G., Younos, M. C., *Plantes med. Phytotherapy* 1 (1967) S. 130; *Biol. Abstr.* 49 (1968) 21 258
- 822 Pereira, J. R., Medina, H., Bustos, R. E., *An. Fac. Med. Univ. Parana* 5 (1962) S. 45; *Biol. Abstr.* 46 (1965) 12 891
- 823 Péronnet, M., Chatin, J., *J. Pharmac. Chim.* 2 (1942) S. 19

- 824 Petrenko, V. V., Kurinna, N. V., *Farmaceutičnij Ž.* 21 (1966) S. 36; *Chem. Abstr.* 66 (1967) 108 193
- 825 Pettinga, C. W., Stark, W. M., Van Abeele, F. R., *J. Amer. chem. Soc.* 76 (1954) S. 569
- 826 Pfeiffer, S., Bär, H., Zarnack, J., *Pharmazie* 27 (1972) S. 536
- 827 Pfenninger, U., *Ber. dtsh. bot. Ges.* 27 (1909) S. 227
- 828 Picinelli, D., *Boll. Soc. eustach. e Ist. Sci. Univ. Camerino* 48 (1955) S. 105; *Chem. Abstr.* 53 (1959) 8 327
- 829 Pictet, A., Wolffenstein, R., *Die Pflanzenalkaloide und ihre chemische Konstitution*, Berlin, 1900
- 830 Pilarczyk, W., *Planta med.* 6 (1958) S. 258
- 831 Pinnert-Sindico, S., *Ann. Inst. Pasteur* 87 (1954) S. 702
- 832 Pizarroso, B., Gamir, A., Fernández, O., *Rev. Real Acad. Ci. exact., fisic. natur. Madrid* 58 (1964) S. 393
- 833 Platonova, T. F., Kuzovkov, A. D., Massagetov, P. S., *Ž. obščej Chimii* 23 (1953) S. 880
- 834 Platonova, T. F., Kuzovkov, A. D., Massagetov, P. S., *Ž. obščej Chimii* 28 (1958) S. 3128
- 835 Poethke, W., Gerlach, H., *Pharmaz. Zentralhalle Deutschland* 108 (1969) S. 587
- 836 Poisson, J., *Ann. pharmac. franç.* 18 (1960) S. 764
- 837 Polstorff, K., *Wallach Festschr.*, S. 569; *Chem. Zbl.* (1909) II, 2 014
- 838 Polstorff, K., *Wallach Festschr.*, S. 579; *Chem. Zbl.* (1909) II, 2 015
- 839 Possingham, J. V., *Austral. J. biol. Sci.* 9 (1956) S. 539
- 840 Potěšilová, H., Hrbek, J., Jr., Santavý, F., *Collect. czechoslov. chem. Commun.* 32 (1967) S. 141
- 841 Potjewild, *Diss. Leiden*, 1933; zit. v. Boit, H.-G. (98)
- 842 Poulsson, E., *Tidsskrift Kemi, Farmaci Terapi* (1916) S. 237 u. 262; *Apotheker-Ztg.* 79 (1916) S. 472
- 843 Poulsson, E., *Naunyn-Schmiedebergs Arch. exp. Pathol. Pharmakol.* 80 (1917) S. 173
- 844 Power, F. B., Browning, H., Jr., *J. chem. Soc.* 101 (1912) S. 2411
- 845 Power, F. B., Browning, H., Jr., *J. chem. Soc.* 105 (1914) S. 1829
- 846 Power, F. B., Browning, H., Jr., *J. chem. Soc.* 105 (1914) S. 2280
- 847 Power, F. B., Chesnut, V. K., *Science* 60 (1924) S. 405
- 848 Power, F. B., Chesnut, V. K., *J. Amer. chem. Soc.* 47 (1925) S. 1751
- 849 Power, F. B., Chesnut, V. K., *J. Amer. chem. Soc.* 48 (1926) S. 2721
- 850 Power, F. B., Salway, *Pharmac. J.* 37 (1913) Ser. 4, S. 117; zit. v. Wehmer, C. (1210)
- 851 Power, F. B., Tutin, F., Royerson, H., *J. chem. Soc.* 103 (1913) S. 1267
- 852 Pratt, R., Johnson, E., *J. pharmac. Sci.* 56 (1967) S. 536

- 853 Preusser, E., Biol. Zbl. 85 (1966) S. 19
- 854 Preußler, M., Pharmaz. Zentralhalle Deutschland 101 (1962) S. 252
- 855 Price, J. R., Robinson, R., Sir, Scott-Moncrieff, R., J. chem. Soc. (1939) S. 1465
- 856 Priestap, H. A., Ruveda, E. A., Albonico, S. M., Deulofeu, V., J. chem. Soc., Chem. Commun. (1967) S. 754; Chem. Abstr. 67 (1967) 100 280
- 857 Prista, L. N., Alves, A. C., Silva, L. A., Garcia Orto 10 (1962) S. 93; zit. v. Smith, T. A. (1046)
- 858 Püringer, K., Mh. Chem. 44 (1923) S. 255
- 859 Pufahl, K., Schreiber, K., Experientia 17 (1961) S. 302
- 860 Qazilbash, N. A., Pharmac. Weekbl. 106 (1971) S. 345
- 861 Qazilbash, N. A., Pharmac. Weekbl. 106 (1971) S. 373
- 862 Qédan, S., Planta med. 21 (1972) S. 121
- 863 Rabitzsch, G., Planta med. 6 (1958) S. 103
- 864 Rabitzsch, G., Planta med. 7 (1959) S. 268
- 865 Rademaker, C. J., Fischer, J. L., Z. allg. österr. Apotheker-Ver. 41 S. 419; Chem. Zbl. 58 (1887) S. 1257
- 866 Raketten, M. L., Newman, B., Falk, K. G., Miller, I., J. Amer. dietet. Assoc. 28 (1952) S. 1050
- 867 Ramachandran, L. K., Rao, K. K., Biochem. biophysic. Res. Commun. 13 (1963) S. 49
- 868 Raoul, Y., C. R. hebdom. Séances Acad. Sci. 205 (1937) S. 450; zit. Karrer, W. (498)
- 869 Read, Feng, Proc. Soc. exp. Biol. Med. 24 (1927) S. 819; zit. v. Boit, H.-G. (98)
- 870 Read, Feng, J. Amer. pharmac. Assoc. 17 (1928) S. 1189; zit. v. Boit, H.-G. (98)
- 871 Read, Liu, J. Amer. pharmac. Assoc. 17 (1928) S. 339
- 872 Reeb, Naunyn-Schmiedeberg's Arch. exp. Pathol. Pharmacol. 41 (1898) S. 302; zit. v. Wehmer, C. (1210)
- 873 Regna, P. P., Murphy, F. X., J. Amer. chem. Soc. 72 (1950) S. 1045
- 874 Reichard, J. prakt. Chem. 104 (1868) S. 301; zit. v. Wehmer, C. (1210)
- 875 Reimann, H., Cooper, D. J., Mallams, A. K., Jaret, R. S., Yehaskel, A., Kugelman, M., Vernay, H. F., Schumacher, D., J. org. Chemistry 39 (1974) S. 1451
- 876 Reimann, H., Jaret, R. S., Chem. Commun. (1972) S. 1270
- 877 Reti, L., C. R. Séances Soc. Biol. Filiales 114 (1933) S. 811; Chem. Abstr. 28 (1934) 1 040
- 878 Reti, L., Atti Congr. int. Chim., X. Congr., Roma 5 (1939) S. 396
- 879 Reti, L., Fortschr. Chem. org. Naturstoffe 6 (1950) S. 242
- 880 Reti, L., Arnolt, R. I., Actas Trabajos V. Congr. nac. Med., Rosario 3 (1935) S. 39; zit. v. Reti, L., Castrillón, J. A. (882)

- 881 Reti, L., Arnolt, R. I., Ludueña, F. P., Rev. Soc. argent. Biol. 10 (1934) S. 437; C. R. Séances Soc. Biol. Filiales 118 (1935) S. 591
- 882 Reti, L., Castrillón, J. A., J. Amer. chem. Soc. 73 (1951) S. 1767
- 883 Reuter, C., Hoppe-Seyler's Z. physiol. Chem. 78 (1912) S. 167
- 884 Reuter, G., Planta med. 10 (1962) S. 226
- 885 Reuter, G., Flora 154 (1964) S. 145
- 886 Reuter, G., Krone, I., Pharmaz. Zentralhalle Deutschland 107 (1968) S. 886
- 887 Reznik, H., Z. Bot. 43 (1955) S. 499
- 888 Rhian, M., Evans, R. J., St. John, J. L., J. Nutrit. 25 (1943) S. 1
- 889 Rhône-Poulenc, Brit. Pat. 785 098 v. 2. Jan. 1956; zit. in Kirk-Othmer (542)
- 890 Rieländer, A., Sitz.-Ber. Ges. Beförd. ges. Naturwiss. Marburg (1908) S. 173; zit. v. Gröger, D., Mothes, U. (367)
- 891 Rinehart, K. L., Jr., The Neomycins and Related Antibiotics, New York, 1961
- 892 Rinehart, K. L., Jr., Hichens, M., Argoudelis, A. D., Chilton, W. S., Carter, H. E., Georgiadis, M., Schaffner, C. P., Schillings, R. T., J. Amer. chem. Soc. 84 (1962) S. 3218
- 893 Ripperger, H., Budzikiewicz, H., Schreiber, H., Chem. Ber. 100 (1967) S. 1725
- 894 Ristić, S., Thomas, A., Arch. Pharmaz. 295 (1962) S. 524
- 895 Rjabinin, A. A., Z. obšč. Chimii 17 (1947) S. 2265; Chem. Abstr. 42 (1948) 4 718
- 896 Rjabinin, A. A., Iljina, Je. M., Doklady Akad. Nauk SSSR (N. S.) 76 (1951) S. 851; Chem. Zbl. (1951) II, 2 183
- 897 Rjabinin, A. A., Iljina, Je. M., Z. prikl. Chimii 27 (1954) S. 221; Chem. Zbl. (1955) 1 978
- 898 Robbers, J. E., Brady, L. R., Tyler, V. E., Jr., Lloydia 27 (1964) S. 192
- 899 Robertson, P. A., Macfarlane, W. V., Austral. J. exp. Biol. med. Sci. 35 (1957) S. 381
- 900 Röpsch, A.; zit. v. Lerch, B., Stegemann, H. (627)
- 901 Rolle, I., Payer, R., Soeder, C. J., Arch. Mikrobiol. 77 (1971) S. 185
- 902 Rosano, C. L., Hurwitz, C., Biochem. biophysic. Res. Commun. 37 (1969) S. 677
- 903 Rosselet, J. P., Marquez, J., Mesecke, E., Murawski, A., Handan, A., Joyner, C., Schmidt, R., Migliore, D., Herzog, H. L., Antimicrobial Agents Chemotherapy (1963) S. 14; zit. v. Hepding, L., Wahlig, H. (412)
- 904 Rother, A., Atal, C. K., Gold, D., Schwarting, A. E., J. Chromatogr. 5 (1961) S. 179
- 905 Rovesti, P., Variati, G. L., Ind. Parfumerie 9 (1954) S. 344; Chem. Zbl. (1955) 10 154
- 906 Rubinstein, M. M., Menschikow, G. P., Z. obščej Chimii 14 (1944) S. 161; Chem. Abstr. 39 (1945) 2 291



- 907 Rucker, G., Kröger, H., Schikarski, M., Qédan, S., *Planta med.* 24 (1973) S. 61
- 908 Ruiz, S. O., Neme, G., Nieto, M., D'Arcangelo, A. T., *An. Asoc. quim. argent.* 61 (1973) S. 41; *Chem. Abstr.* 79 (1973) 15 842
- 909 Ruveda, E. A., Priestap, H. A., Deulofeu, V., *An. Asoc. quim. argent.* 54 (1966) S. 237; *Chem. Abstr.* 69 (1968) 61 518
- 910 Ruzicka, L., Dalma, G., *Helv. chim. Acta* 23 (1940) S. 753
- 911 Ruzicka, L., Plattner, P. A., Engel, B. G., *Experientia* 1 (1945) S. 160
- 912 Sabalitschka, T. H., *Apotheker-Ztg.* 33 (1918) S. 477
- 913 Saber, A. H., Mahran, G. H., El-Alfy, T., *Planta med.* 16 (1968) S. 231
- 914 Sadique, J., Shanmugasundaram, R., Shanmugasundaram, E. R. B., *Current Sci.* 35 (1966) S. 336
- 915 Saenger, W., *Pharmazie* 2 (1947) S. 193
- 916 Sakasi, S., *Bull. agric. chem. Soc. Japan* 9 (1933) S. 87; *Chem. Zbl.* (1934) I, 2 436
- 917 Sakevič, A. I., *Gidrobiol. Ž.* 6 (1970) 3, S. 98
- 918 Saleh, M., El-Gangihi, S., El-Hamidi, A., Šantavý, F., *Collect. czechoslov. chem. Commun.* 28 (1963) S. 3413
- 919 Salemink, C. A., Broeke, J. W., ten, Schuller, P. L., Veen, E., *Planta med.* 11 (1963) S. 139
- 920 Salemink, C. A., Schuller, P. L., *Recueil Trav. chim. Pays-Bas* 82 (1963) S. 21
- 921 Salemink, C. A., Veen, E., Kloet, W. A., de, *Planta med.* 13 (1965) S. 211
- 922 Salgues, R., Delépine, M., *C. R. hebdom. Séances Acad. Sci.* 240 (1955) S. 1136
- 923 Samuelsson, G., *Farmac. Revy* 50 (1951) S. 229
- 924 Samuelsson, G., *Svensk farmac. Tidskr.* 62 (1958) S. 169
- 925 Samuelsson, G., *Svensk farmac. Tidskr.* 63 (1959) S. 545
- 926 Sandberg, F., *Colloques int. Centre nat. Rech. sci. Nr.* 144 (1966) S. 59
- 927 Sandberg, F., Michel, K.-H., *Lloydia* 26 (1963) S. 78
- 928 Sandberg, F., Michel, K.-H., *Acta pharmac. Suecica* 5 (1968) S. 61; *Chem. Abstr.* 69 (1968) 25 043
- 929 Sandberg, F., Norin, T., Lindwail, O., Thorsen, R., *Herba Hung.* 5 (1966) 2-3, S. 61; *Chem. Abstr.* 68 (1968) 59 771
- 930 Šantavý, F., *Chem. Listy* 42 (1948) S. 177; *zit. v. Šantavý, F. u. Mit.* (933)
- 931 Šantavý, F., *Pharmac. Acta Helvetiae* 25 (1950) S. 248
- 932 Šantavý, F., *Pharmaz. Zentralhalle Deutschland* 96 (1957) S. 307
- 933 Šantavý, F., Cernoch, M., Malinsky, J., Lang, B., Zajickova, A., *Ann. pharmac. franç.* 9 (1951) S. 51
- 934 Šantavý, F., Hoščálkova, Z., Podivinský, R., Potěšilová, H., *Chem. Listy* 48 (1954) S. 886
- 935 Šantavý, F., Macák, V., *Collect. czechoslov. chem. Commun.* 19 (1954) S. 805

- 936 Šantavý, F., Sedmera, P., Snatzke, G., Reichstein, T., *Helv. chim. Acta* 54 (1971) S. 1084
- 937 Šantavý, F., Talas, M., *Collect. ozechoslov. chem. Commun.* 19 (1954) S. 141
- 938 Šantavý, F., Zajicek, D. V., Němečková, A., *Chem. Listy* 51 (1957) S. 597
- 939 Sanyal, A. K., Dasgupta, B., Gambhir, S. S., Das, P. K., *Indian J. med. Res.* 54 (1966) S. 1060
- 940 Sarukhanyan, F. G., Akopyan, L. G., *Biol. Ž. Armenii* 26 (1973) S. 10; *Chem. Abstr.* 79 (1973) 89 210
- 941 Sasaki, S., *Bull. agric. chem. Soc. Japan* 9 (1933) S. 89
- 942 Sato, H., Sakamura, S., Obata, Y., *Agric. biol. Chem.* 34 (1970) S. 1254; *Chem. Abstr.* 74 (1971) 24 951
- 943 Sato, P. T., Neal, J. M., Brady, L. R., McLaughlin, J. L., *J. pharmac. Sci.* 62 (1973) S. 411
- 944 Sato, T., Kobayashi, Y., Takahashi, M., *J. pharmac. Soc. Japan* 92 (1972) S. 1295
- 945 Sawazaki, T., Susuki, S., Nakamura, G., Kawasaki, M., Yamashita, S., Isono, K., Anzai, K., Serizawa, Y., Sekiyama, Y., *J. Antibiotics, Ser. A*, 8 (1955) S. 44
- 946 Saxena, P. R., Pant, M. C., Kishor, K., Bhargava, K. P., *Canad. J. Physiol. Pharmacol.* 43 (1965) S. 869; *Chem. Zbl.* (1966) 33-1293
- 947 Saxena, P. R., Tangri, K. K., Bhargava, K. P., *Canad. J. Physiol. Pharmacol.* 44 (1966) S. 621; *Chem. Abstr.* 65 (1966) 5 868
- 948 Sayed, M. D., Balbaa, S. I., Afifi, S. A., *Planta med.* 24 (1973) S. 260
- 949 Scalione, J. *ind. Engin. Chem.* 8 (1916) S. 729; zit. v. Wehmer, C. (1210)
- 950 Schäfer, J., Stein, M., *Biol. Zbl.* 88 (1969) S. 755
- 951 Schatz, A., Bugie, E., Waksman, S. A., *Proc. Soc. exp. Biol. Med.* 55 (1944) S. 66
- 952 Scheffer, F., Kickhut, R., Schlimme, E., *Naturwissenschaften* 54 (1967) S. 118
- 953 Scheurlen, *Arch. Hyg. Bakteriol.* 26 (1896) S. 1
- 954 Schindler, H., *Pharmazie* 4 (1949) S. 178
- 955 Schlittler, E., Friedrich, W., *Helv. chim. Acta* 33 (1950) S. 878
- 956 Schlittler, E., Heusler, K., Friedrich, W., *Helv. chim. Acta* 32 (1949) S. 2209
- 957 Schmalfuss, H., Bartmeyer, H., Brandes, H., *Biochem. Z.* 189 (1927) S. 229; zit. v. Karrer, W. (498)
- 958 Schmalfuss, H., Heider, A., *Biochem. Z.* 236 (1931) S. 226
- 959 Schmidt, E., *Liebigs Ann. Chem.* 193 (1878) S. 73
- 960 Schmidt, E., Buschmann, E., *Arch. Pharmaz.* 249 (1911) S. 4
- 961 Schmidt, E., Faas, J. *Pharmac. Chim.* (1879) S. 514; zit. v. Wehmer, C. (1210)
- 962 Schmidt, E., Henschke, H., *Arch. Pharmaz.* 226 (1888) S. 185
- 963 Schmiedeberg, O., *Naunyn-Schmiedebergs Arch. exp. Pathol. Pharmakol.* 14 (1881) S. 376; zit. v. Eugster, C. H. (277)

- 964 Schmiedeberg, O., Harnack, E., Med. Cbl. 13 (1875) S. 598; Chem. Zbl. (1875) III, S. 629
- 965 Schmiedeberg, O., Koppe, R., Vjschr. prakt. Pharmazie 19 (1870) S. 276
- 966 Schmieder, O., Diss. Erlangen, 1886; zit. v. List, P. H., Hetzel, H. (646)
- 967 Schmit, A., Trav. Lab. Matière méd. 35 (1950); zit. v. Goutarel, R. (354)
- 968 Schormüller, J., Weder, J., Z. Lebensmittel-Unters. u. -Forsch. 130 (1966) S. 213
- 969 Schreiber, K., 3. Internat. Symposium Biochemie u. Physiologie der Alkaloide, Halle (Saale), 1965
- 970 Schreiber, K., Aurich, O., Pufahl, K., Arch. Pharmaz. 295 (1962) S. 271
- 971 Schreiber, K., Pufahl, K., Bräuniger, H., Liebigs Ann. Chem. 671 (1964) S. 147
- 972 Schreiber, K., Ripperger, H., Tetrahedron Letters (1966) S. 5997
- 973 Schreiber, K., Ripperger, H., Kulturpflanze 15 (1967) S. 199
- 974 Schreiber, K., Ripperger, H., Budzikiewicz, H., Tetrahedron Letters (1965) S. 3999
- 975 Schubert, J., Radecke, H.-R., Pharmazie 22 (1967) S. 594
- 976 Schuller, P. L., Salemink, C. A., Planta med. 10 (1962) S. 327
- 977 Schulte, K. E., Krause, H., Biochem. Z. 322 (1951) S. 168
- 978 Schulte, K. E., Rücker, G., Reithmayr, K., Lloydia 32 (1969) S. 360
- 979 Schultz, O.-E., Gmelin, R., Z. Naturforsch., b 7 (1952) S. 500
- 980 Schultz, O.-E., Gmelin, R., Z. Naturforsch., b 8 (1953) S. 151
- 981 Schultz, O.-E., Hoenicke, K.-L., Pharmaz. Ztg. 116 (1971) S. 713
- 982 Schulze, E., Hoppe-Seyler's Z. physiol. Chem. 11 (1887) S. 365
- 983 Schulze, E., Hoppe-Seyler's Z. physiol. Chem. 12 (1888) S. 405; zit. v. Klein, G., Linser, H. (547)
- 984 Schulze, E., Ber. dtsh. chem. Ges. 22 (1889) S. 1827
- 985 Schulze, E., Hoppe-Seyler's Z. physiol. Chem. 15 (1890) S. 140; zit. v. Klein, G., Linser, H. (547)
- 986 Schulze, E., Ber. dtsh. chem. Ges. 24 (1891) S. 1098
- 987 Schulze, E., Ber. dtsh. chem. Ges. 25 (1892) S. 658
- 988 Schulze, E., Hoppe-Seyler's Z. physiol. Chem. 16 (1892) S. 386; zit. v. Wehmer, C. (1210)
- 989 Schulze, E., Hoppe-Seyler's Z. physiol. Chem. 17 (1893) S. 193
- 990 Schulze, E., Hoppe-Seyler's Z. physiol. Chem. 17 (1893) S. 196 u. 215
- 991 Schulze, E., Landwirtsch. Versuchsstat. (1895) S. 383; zit. v. Wehmer, C. (1210)
- 992 Schulze, E., Landwirtsch. Versuchsstat. 46 (1896) S. 23; zit. v. Kröner, W., Völksen, W. (582)
- 993 Schulze, E., Landwirtsch. Versuchsstat. 46 (1896) S. 38 - 81; zit. v. Klein, G., Linser, H. (547)



- 994 Schulze, E., Landwirtsch. Versuchsstat. 46 (1896) S. 383; zit. v. Klein, G., Linser, H. (547)
- 995 Schulze, E., Landwirtsch. Versuchsstat. 49 (1897) S. 203; zit. v. Wehmer, C. (1210)
- 996 Schulze, E., Landwirtsch. Versuchsstat. 59 (1904) S. 331; zit. v. Yoshimura, K. (1266)
- 997 Schulze, E., Hoppe-Seyler's Z. physiol. Chem. 47 (1906) S. 496; zit. v. Wehmer, C. (1210)
- 998 Schulze, E., Hoppe-Seyler's Z. physiol. Chem. 47 (1906) S. 507; zit. v. Wehmer, C. (1210)
- 999 Schulze, E., Hoppe-Seyler's Z. physiol. Chem. 60 (1909) S. 155; zit. v. Wehmer, C. (1210)
- 1000 Schulze, E., Hoppe-Seyler's Z. physiol. Chem. 71 (1911) S. 42
- 1001 Schulze, E., Landwirtsch. Versuchsstat. 73 S. 51; zit. v. Klein, G., Linser, H. (547)
- 1002 Schulze, E., Castoro, N., Hoppe-Seyler's Z. physiol. Chem. 41 (1904) S. 464
- 1003 Schulze, E., Frankfurt, S., Ber. dtsh. chem. Ges. 26 (1893) S. 2151
- 1004 Schulze, E., Frankfurt, S., Ber. dtsh. chem. Ges. 27 (1894) S. 769
- 1005 Schulze, E., Frankfurt, S., Landwirtsch. Versuchsstat. 43 (1894) S. 307; zit. v. Wehmer, C. (1210)
- 1006 Schulze, E., Hiestand, Bissegger, Landwirtsch. Versuchsstat. 67 (1907) S. 57; zit. v. Wehmer, C. (1210)
- 1007 Schulze, E., Trier, G., Hoppe-Seyler's Z. physiol. Chem. 67 (1910) S. 63
- 1008 Schulze, E., Trier, G., Hoppe-Seyler's Z. physiol. Chem. 67 (1910) S. 72
- 1009 Schulze, E., Trier, G., Hoppe-Seyler's Z. physiol. Chem. 76 (1912) S. 258; zit. v. Klein, G., Linser, H. (547)
- 1010 Schulze, E., Trier, G., Hoppe-Seyler's Z. physiol. Chem. 81 (1912) S. 53 - 58
- 1011 Schulze, E., Winterstein, E., Hoppe-Seyler's Z. physiol. Chem. 65 (1910) S. 431
- 1012 Schulze, E., Winterstein, E., Hoppe-Seyler's Z. physiol. Chem. 65 (1910) S. 446 u. 454; zit. v. Klein, G., Linser, H. (547)
- 1013 Schwarting, A. E., Bobbitt, J. M., Rother, A., Atal, C. K., Khanna, K. L., Leary, J. D., Walter, W. G., Lloydia 26 (1963) S. 258
- 1014 Schwarze, P., Naturwissenschaften 36 (1949) S. 88
- 1015 Selyametov, R. A., Yakubov, K. F., Kultiv. Vodor. Vys. Vod. Rast. Uzb. (1966) S. 59; Chem. Abstr. 76 (1972) 137 867
- 1016 Sen, N. P., J. Food Sci. 34 (1969) S. 22
- 1017 Seymour, S. C., Lichtenstein, J., J. biol. Chemistry 235 (1960) S. 2112
- 1018 Shakirova, K. K., Khazanovich, R. L., Farmacija 18 (1969) 5, S. 32; Chem. Abstr. 72 (1970) 39 755
- 1019 Shalaby, A. F., Steinegger, E., Pharmac. Acta Helvetiae 39 (1964) S. 756
- 1020 Shgenti, Z. N., Sakartvelos SSR Meznierrebata Akademnis moambe, Soobstsch. AN Grus. SSR 44 (1966) S. 631; Chem. Abstr. 67

- (1967) 92 413
- 1021 Shibata, M., Nakazawa, K., Hitomi, H., Imanishi, M., Terumichi, J., Miyake, A., Annu. Rep. Takeda Res. Labor. 18 (1959) S. 49; Chem. Zbl. (1962) 2 041
- 1022 Shibata, S., Imaseki, I., Pharmac. Bull. 1 (1953) S. 284; zit. v. Mothes, K., Schütte, H. R. (735)
- 1023 Shimabayashi, Y., Mitsui, T., J. agric. chem. Soc. Japan 30 (1956) S. 507
- 1024 Shimura, M., Sekizawa, Y., Iinuma, K., Naganawa, H., Kondo, S., J. Antibiotics 28 (1975) S. 83
- 1025 Shirahama, K., J. Fac. Agric., Hokkaido Imp. Univ. 49 (1942) S. 1; zit. v. Steiner, M., Hartmann, T. (1066)
- 1026 Shnaidman, L. O., Shugam, N. A., Ushakova, M. T., Prikl. Biochimija Mikrobiologija 5 (1969) S. 371
- 1027 Shoji, J., Nakagawa, Y., J. Antibiotics 23 (1970) S. 569
- 1028 Siddiqui, S., Proc. Indian Acad. Sci., Sect. A (1936) S. 249; zit. v. Tschesche, R., Wiensz, K. (1159)
- 1029 Siddiqui, S., Misra, S. C., Sharma, V., J. sci. ind. Res. 3 (1945) S. 555; zit. v. Bisset, N. G. (86)
- 1030 Siddiqui, S., Pillay, P. P., J. Indian chem. Soc. 9 (1932) S. 553; Chem. Zbl. (1933) I, 2 122
- 1031 Siddiqui, S., Pillay, P. P., J. Indian chem. Soc. 10 (1933) S. 673; zit. v. Tschesche, R. (1157)
- 1032 Sinclair, C., Nature 213 (1967) S. 214
- 1033 Singer, G. M., Lijinsky, W., J. agric. Food Chem. 24 (1976) S. 554
- 1034 Sinh, D., Smalley, E. B., 56. Annual Meeting of the American Phytopathological Soc., Lafayette, Ind., 1964; ref. in Phytopathology 54 (1964) S. 908
- 1035 Sinh, D., Smalley, E. B., Forest Sci. 15 (1969) S. 299
- 1036 Sinh, D., Smalley, E. B., Canad. J. Bot. 47 (1969) S. 1061
- 1037 Sinsheimer, J. E., McIlhenny, H. M., J. pharmac. Sci. 56 (1967) S. 732
- 1038 Slaughter, J. C., J. Inst. Brewing 76 (1970) S. 24
- 1039 Slaughter, J. C., Uvgard, A., Roseli, A., Phytochemistry 11 (1972) S. 478
- 1040 Smith, B. N., Meeuse, J. D., Plant Physiol. 41 (1966) S. 343
- 1041 Smith, D. G., Young, E. G., J. biol. Chemistry 205 (1953) S. 849
- 1042 Smith, S., J. chem. Soc. (1927) S. 2056
- 1043 Smith, S., J. chem. Soc. (1928) S. 51
- 1044 Smith, T. A., Phytochemistry 2 (1963) S. 241
- 1045 Smith, T. A., Phytochemistry 9 (1970) S. 1479
- 1046 Smith, T. A., Biol. Rev. Cambridge philos. Soc. 46 (1971) S. 211 u. 222
- 1047 Smolenski, Oesterr.-Ung. Z. Zuckerind. Landwirtsch. 42 (1913) S. 45; zit. v. Wehmer, C. (1210)
- 1048 Sobin, B. A. u. Mit., Antibiotics Annu. (1954 - 1955) S. 827; zit. v. Preußler, M. (854)

- 1049 Solberg, Y. J., Z. Naturforsch., b 24 (1969) S. 447
- 1050 Solberg, Y. J., Bryologist 74 (1971) S. 144; Chem. Abstr. 75 (1971) 126 657
- 1051 Solberg, Y. J., Z. Pilzkunde 40 (1974) S. 211
- 1052 Sørensen, H., Phytochemistry 9 (1970) S. 865
- 1053 Šoti, F., Cerny, V., Sorm, F., Tetrahedron Letters (1967) S. 1437
- 1054 Späth, E., Becke, F., Mh. Chem. 66 (1935) S. 327
- 1055 Späth, E., Bruck, J., Ber. dtsh. chem. Ges. 70 (1937) S. 2446
- 1056 Spahr, P. F., J. molecular Biol. 4 (1962) S. 395
- 1057 Speir, W. W., Mihranian, V., McLaughlin, J. L., Lloydia 33 (1970) S. 15
- 1058 Sserenkow, G. P., Nauč. Doklady Vysšej Školy. Biol. Nauki (1959) 2, S. 175
- 1059 Sserenkow, G. P., Preusser, E., Vestnik Moskovskogo Univ., Ser. VI Biol., Pochvovedenija 15 (1960) 1, S. 21
- 1060 Stauffacher, D., Helv. chim. Acta 47 (1964) S. 968
- 1061 Steelink, C., Yeung, M., Caldwell, R. L., Phytochemistry 6 (1967) S. 1435
- 1062 Steger, H., Diss. Jena, 1950; zit. v. Poethke, W., Gerlach, H. (835)
- 1063 Stein v. Kamienski, E., Planta 50 (1958) S. 315
- 1064 Stein v. Kamienski, E., Planta 50 (1958) S. 331
- 1065 Steiner, M., Beitr. Biol. Pflanzen 17 (1929) S. 247; Chem. Zbl. (1931) I, 1 298
- 1066 Steiner, M., Hartmann, T., Planta 79 (1968) S. 113
- 1067 Steiner, M., Löffler, H., Jb. wiss. Bot. 71 (1930) S. 463
- 1068 Steiner, M., Stein v. Kamienski, E., Naturwissenschaften 40 (1953) S. 483
- 1069 Steiner, M., Stein v. Kamienski, E., Naturwissenschaften 42 (1955) S. 345
- 1070 Steiniger, J., Reuter, G., Pharmazie 28 (1973) S. 682
- 1071 Stepanova, E. F., Uč. Záp., Pyatigorsk, Farm. Inst. 6 (1967) S. 150; Chem. Abstr. 70 (1969) 112 419
- 1072 Stephenson, M., Rowatt, E., J. gen. Microbiol. 1 (1947) S. 279; zit. v. Ikawa, M. u. Mit. (442)
- 1073 Stern, F., Zellner, J., Mh. Chem. 46 (1925) S. 459
- 1074 Stevens, L., Morrison, M. R., Biochem. J. 108 (1968) S. 633
- 1075 Steward, F. C., Hulme, A. C., Freiberg, S. R., Hegarty, M. P., Pollard, J. K., Rabson, R., Barr, R. A., Ann. Botany (N. S.) 24 (1960) S. 83
- 1076 Stewart, I., Florida State hortic. Soc. Proc. 76 (1963) S. 242
- 1077 Stewart, I., Newhall, W. F., Edwards, G. J., J. biol. Chemistry 239 (1964) S. 930
- 1078 Stewart, I., Wheaton, T. A., Science 145 (1964) S. 60
- 1079 Stewart, I., Wheaton, T. A., Florida State hortic. Soc. Proc. 77 (1964) S. 318

- 1080 Stewart, I., Wheaton, T. A., Citrus Ind. 46 (1965) S. 33; Chem. Zbl. (1967) 27-3208
- 1081 Stewart, I., Wheaton, T. A., J. org. Chemistry 33 (1968) S. 471
- 1082 Stift, Oesterr.-Ung. Z. Zuckerind. Landwirtsch. 24 S. 783; zit. v. Wehmer, C. (1210)
- 1083 Stockman, R., Pharmac. J. 89 (1912) S. 676
- 1084 Stodola, F. H., Shotwell, O. L., Borud, A. M., Benedict, R. G., Riley, A. C., Jr., J. Amer. chem. Soc. 73 (1951) S. 2290
- 1085 Struve, H., Z. analyt. Chem. 39 (1900) S. 1; zit. v. Nottbohm, F. E., Mayer, F. (779)
- 1086 Struve, H., Z. analyt. Chem. 41 (1902) S. 544
- 1087 Stuart, K. L., Rev. Latinoamericana Quim. 1 (1970) S. 140; Chem. Abstr. 74 (1971) 121 334
- 1088 Stuart, K. L., Byfield, D. Y., Phytochemistry 10 (1971) S. 460
- 1089 Sugiura, S. u. Mit., Tetrahedron 25 (1969) S. 5155
- 1090 Sullivan, G., Brady, L. R., Lloydia 28 (1965) S. 68
- 1091 Sulochana, C. B., Plant and Soil 16 (1962) S. 327
- 1092 Susplugas, J., Gal, F., Susplugas, P., Maestre, G., Trav. Soc. Pharmac. Montpellier 30 (1970) S. 203; Chem. Abstr. 74 (1971) 72 820
- 1093 Susplugas, J., Privat, G., Sarda, J. P., Trav. Soc. Pharmac. Montpellier 26 (1966) S. 349; Chem. Abstr. 67 (1967) 97 681
- 1094 Suzuki, M., Takamori, I., Kinumaki, A., Sugawara, Y., Okuda, T., Tetrahedron Letters (1971) S. 435
- 1095 Suzuki, M., Takamori, I., Kinumaki, A., Sugawara, Y., Okuda, T., J. Antibiotics 24 (1971) S. 904
- 1096 Suzuki, T., Bull. chem. Soc. Japan 43 (1970) S. 292
- 1097 Suzuki, T., Chem. Letters (1973) S. 799
- 1098 Suzuki, T., Mizuta, E., Sugita, N., Chem. Letters (1973) S. 793
- 1099 Suzuki, T., Sugita, N., Asai, M., Chem. Letters (1973) S. 789
- 1100 Swenberg, M.-L. L., Diss. Connecticut, 1969; Diss. Abstr. B 30 (1969) S. 726
- 1101 Swenberg, M.-L. L., Kelleher, W. J., Schwarting, A. E., Science 155 (1967) S. 1259; zit. v. Eugster, C. H. (279)
- 1102 Swieboda, M., Diss. pharmac. 14 (1962) S. 207
- 1103 Swieboda, M., Diss. pharmac. 16 (1964) S. 121
- 1104 Sykulska, Z., Acta polon. pharmac. 19 (1962) S. 183
- 1105 Szentpétery, G. R., Nyomárkay, K. M., Sárkány, S., Horváth, K. B., Pharmazie 18 (1963) S. 816
- 1106 Tabor, H., Rosenthal, S. M., Tabor, C. W., J. biol. Chemistry 233 (1958) S. 907
- 1107 Tabor, H., Tabor, C. W., Rosenthal, S., unveröff.; zit. in Pharmacol. Rev. 16 (1964) S. 245
- 1108 Takahashi, T., Yoshida, D., J. Sci. Soil Manure, Japan 31 (1960) S. 39; zit. v. Smith, T. A. (1046)
- 1109 Takatori, K., Kato, T., Asano, S., Ozaki, M., Nakashima, T., Chem. pharmac. Bull. 11 (1963) S. 1342



- 1110 Takebe, I., J. gen. appl. Microbiol. 6 (1960) S. 83; Chem. Zbl. (1962) 14 914
- 1111 Takemoto, T., Daigo, K., Takagi, N., J. pharmac. Soc. Japan 84 (1964) S. 1176
- 1112 Takemoto, T., Tagaki, N., Daigo, K., J. pharmac. Soc. Japan 85 (1965) S. 843
- 1113 Talbot, G., Vining, L. C., Canad. J. Bot. 41 (1963) S. 639
- 1114 Tang, T.-H., Diss. Berlin, 1929; zit. v. Emde, H. (268)
- 1115 Tanner, F. W., Jr., English, A. R., Lees, T. M., Routien, J. B., Antibiotics and Chemotherapy 2 (1952) S. 441
- 1116 Tanret, G., C. R. hebdom. Séances Acad. Sci. 158 (1914) S. 1182
- 1117 Tanret, G., C. R. hebdom. Séances Acad. Sci. 158 (1914) S. 1426
- 1118 Tanret, G., Bull. Soc. chim. France 15 (1914) S. 613; zit. v. Barthel, A., Reuter, G. (60)
- 1119 Taylor, D. A., Henry, A. J., Phytochemistry 12 (1973) S. 1178
- 1120 Teas, H. J., Plant Physiol. 29 (1954) S. 190
- 1121 Thies, H., Pharmaz. Ind. 10 (1943) S. 289; zit. v. Schulte, K. E. u. Mit. (978)
- 1122 Thoai, N., van, Desvages, G., Bull. Soc. Chim. biol. 45 (1963) S. 413
- 1123 Thompson, R. M., Strong, F. M., Biochem. biophysic. Res. Commun. 43 (1971) S. 213
- 1124 Thoms, Apotheker-Ztg. 15 (1900) S. 753; zit. v. Wehmer, C. (1210)
- 1125 Thoms, H., Ber. dtsh. chem. Ges. 21 (1888) S. 1912
- 1126 Thoms, H., Ber. dtsh. chem. Ges. 31 (1898) S. 271
- 1127 Thoms, H., Ber. dtsh. chem. Ges. 31 (1898) S. 404
- 1128 Thoms, H., Dambergis, C., Arch. Pharmaz. 268 (1930) S. 39
- 1129 Thoms, S., Pharmaz. Zentralhalle Deutschland 28 (1887) S. 231
- 1130 Tiberio, M., Ann. Sperimentaz. agrar. (N. S.) 11 (1957) S. 1045; Chem. Zbl. (1958) 12 208
- 1131 Tiemann, R., Arch. Pharmaz. 241 (1903) S. 289
- 1132 Timmins, P., Court, W. E., Planta med. 27 (1975) S. 105
- 1133 Todd, J. S., Lloydia 32 (1969) S. 395
- 1134 Tokita, F., Hosono, A., Milchwissenschaft 23 (1968) S. 690
- 1135 Tomczyk, H., Diss. pharmac. 16 (1964) S. 297
- 1136 Tomita, M., Kikuchi, T., Uyeo, S., Nishinaga, T., Yasunishi, M., Yamamoto, A., J. pharmac. Soc. Japan 87 (1967) S. 215
- 1137 Tomita, M., Kunitomo, J., J. pharmac. Soc. Japan 80 (1960) S. 1300
- 1138 Tomita, M., Nakano, T., J. pharmac. Soc. Japan 72 (1952) S. 197
- 1139 Tomita, M., Nakano, T., J. pharmac. Soc. Japan 72 (1952) S. 727
- 1140 Tomita, M., Nakano, T., J. pharmac. Soc. Japan 72 (1952) S. 766
- 1141 Tomita, M., Nakano, T., Pharmac. Bull. 5 (1957) S. 10

- 1142 Tomita, M., Uyeo, S., Jr., Kikuchi, T., Tetrahedron Letters (1964) S. 1641
- 1143 Tomko, J., persönl. Mitt.; zit. v. Schreiber, K. (1969)
- 1144 Tomko, J., Awad, A. T., Beal, J. L., Doskotch, R. W., Lloydia 30 (1967) S. 231
- 1145 Tomko, J., Awad, A. T., Beal, J. L., Doskotch, R. W., J. pharmac. Sci. 57 (1968) S. 329
- 1146 Tomko, J., Bauerová, O., Votický, Z., Goutarel, R., Longevialle, P., Tetrahedron Letters (1966) S. 915
- 1147 Tomko, J., Votický, Z., Paulik, V., Vassová, A., Bauerová, O., Chemické Zvesti 18 (1964) S. 721
- 1148 Tono, T., Bull. Fac. Agric. Tottori Univ. Japan 22 (1970) S. 13; zit. v. Tono, T. (1149)
- 1149 Tono, T., Agric. biol. Chem. 35 (1971) S. 619
- 1150 Torquati, T., Arch. Farmacol. sperim. Sci. affini 10 (1910) S. 62; Chem. Zbl. (1911) I, 166
- 1151 Totani, G., Hoppe-Seyler's Z. physiol. Chem. 62 (1909) S. 113
- 1152 Totani, G., Hoppe-Seyler's Z. physiol. Chem. 70 (1911) S. 388
- 1153 Toyosawa, I., Yamamoto, K., Honda, K., J. agric. chem. Soc. Japan 44 (1970) S. 29; Chem. Abstr. 73 (1970) 117 282
- 1154 Trier, G., Hoppe-Seyler's Z. physiol. Chem. 85 (1913) S. 379
- 1155 Truong-Ho, M., Khuong-Huu, Q., Goutarel, R., Bull. Soc. chim. France (1963) S. 594
- 1156 Truong-Ho, M., Monseur, X., Khuong-Huu, Q., Goutarel, R., Bull. Soc. chim. France (1963) S. 2332
- 1157 Tschesche, R., Fortschr. Chem. org. Naturstoffe 24 (1967) S. 122
- 1158 Tschesche, R., Otto, P., Chem. Ber. 95 (1962) S. 1144
- 1159 Tschesche, R., Wiensz, K., Chem. Ber. 91 (1958) S. 1504
- 1160 Tschirch, A., Handbuch der Pharmakognosie, Bd. 1, 3. Abtl., S. 1896, Leipzig, 1933
- 1161 Tsukiura, H., Fujisawa, K., Konishi, M., Saito, K., Numata, K., Ishikawa, H., Miyaki, T., Tomita, K., Kawaguchi, H., J. Antibiotics 26 (1973) S. 351
- 1162 Tsukiye, S., Biochem. Z. 131 (1922) S. 124
- 1163 Tsuruoka, T., Ezaki, N., Shomura, T., Amano, S., Inouye, S., Niida, T., J. Antibiotics 24 (1971) S. 476
- 1164 Tsuruoka, T., Shomura, T., Ezaki, N., Watanabe, H., Akita, E., Inouye, S., Niida, T., J. Antibiotics 24 (1971) S. 452
- 1165 Tulus, M. R., Ulubelen, A., Özer, F., Arch. Pharmaz. 294 (1961) S. 11
- 1166 Tunmann, P., Janka, R., Arzneimittel-Forsch. 5 (1955) S. 20; Chem. Zbl. (1957) 3 610
- 1167 Tunmann, P., Linde, H., Arch. Pharmaz. 291 (1958) S. 263
- 1168 Turdikulov, Ch., Jusupov, M. K., Sadykov, A. S., Chim. Prir. Soedin 8 (1972) 2, S. 247; ZIC Referatedienst organ. Chem. (1973) 08.0351
- 1169 Turner, W. J., Heymann, J. J., J. org. Chemistry 25 (1960) S. 2250

- 1170 Turowska, I., Kohlminzer, S., Molik-Wegiel, J., Dissertat. pharmac. 19 (1967) S. 377
- 1171 Turowska, I., Kohlminzer, S., Molik-Wegiel, J., Dissertat. pharmac. 21 (1969) S. 417
- 1172 Tyihák, E., Acta pharmac. hung. 30 (1960) S. 283
- 1173 Tyihák, E., Naturwissenschaften 51 (1964) S. 315
- 1174 Tyler, V. E., Jr., Malone, M. H., J. Amer. pharmac. Assoc., sci. Ed. 49 (1960) S. 23
- 1175 Udenfriend, S., Lovenberg, W., Sjoerdsma, A., Arch. Biochem. Biophysics 85 (1959) S. 487
- 1176 Uehleke, H., Naturwissenschaften 44 (1957) S. 377
- 1177 Ullmann, A., Biochem. Z. 128 (1922) S. 402
- 1178 Ulschmid, L., Pharmazie 7 (1952) S. 101
- 1179 Umezawa, H., Ueda, M., Maeda, K., Yagishita, K., Kondo, S., Okami, Y., Utahara, R., Osato, Y., Nitta, K., Takeuchi, T., J. Antibiotics 10 (1957) S. 181
- 1180 Umezawa, S., in Tipson, R. S., Horton, D. (Hrg.), Advances in Carbohydrate Chemistry and Biochemistry, Vol. 30, New York, 1974
- 1181 Umezawa, S., Miyazawa, T., Tsuchiya, T., J. Antibiotics 25 (1972) S. 530
- 1182 Vanderveen, R. L., West, L. G., McLaughlin, J. L., Phytochemistry 13 (1974) S. 866
- 1183 Vassová, A., Tomko, J., Votický, Z., Beal, J. L., Pharmazie 25 (1970) S. 363
- 1184 Veliky, I. A., Genest, K., Lloydia 35 (1972) S. 450
- 1185 Vera, S., Szabo, E., Ibanez, J., Bol. Soc. Biol. 10 (1953) S. 19; Chem. Abstr. 48 (1954) 4 777
- 1186 Vickery, H. B., J. biol. Chemistry 61 (1924) S. 124
- 1187 Vickery, H. B., J. biol. Chemistry 65 (1925) S. 87
- 1188 Vickery, H. B., J. biol. Chemistry 68 (1926) S. 585
- 1189 Vigorov, L.I., Rastitel'nye Resursy 8 (1972) S. 557
- 1190 Völcker, Chem. Gaz. (1851) S. 131; zit. v. Wehmer, C. (1210)
- 1191 Vogl, H., Mh. Chem. 44 (1923) S. 19
- 1192 Votický, Z., Paulik, V., Chem. Zvesti 26 (1972) S. 376
- 1193 Votický, Z., Paulik, V., Sedlak, B., Chem. Zvesti 23 (1969) S. 702
- 1194 Votický, Z., Tomko, J., Abh. dtsh. Akad. Wiss. Berlin, Kl. Chem., Geol. Biol. (1966) 3, S. 93; Chem. Abstr. 67 (1967) 11 668
- 1195 Waalkes, T. P., Sjoerdsma, A., Creveling, C. R., Weissbach, H., Udenfriend, S., Science 127 (1958) S. 648
- 1196 Wagman, G. H., Waitz, J. A., Marquez, J., Murawski, A., Oden, E. M., Testa, R. T., Weinstein, M. J., J. Antibiotics 25 (1972) S. 641
- 1197 Wakeman, N., J. Amer. pharmac. Assoc. 14 (1925) S. 32
- 1198 Waksman, S. A., Bugie, E., Schatz, A., Proc. Mayo Clinic 19 (1944) S. 537; zit. v. Saenger, W. (915)
- 1199 Waksman, S. A., Lechevalier, H. A., Science 109 (1949) S. 305



- 1200 Walz, Jber. Fortschr. Chem. (1852) S. 552
- 1201 Wang, L. C., Plant Physiol. 50 (1972) S. 152; Chem. Abstr. 77 (1972) 72 537
- 1202 Wang, L. C., Selke, E., Plant Physiol. 51 (1973) S. 432
- 1203 Wannigama, G. P., Cavé, A., Ann. pharmac. franç. 30 (1972) S. 535
- 1204 Warnhoff, E. W., Chem. and Ind. (1957) S. 1385
- 1205 Wassel, G. M., Z. Naturforsch. 30 c (1975) S. 349
- 1206 Watanabe, T., Bull. chem. Soc. Japan 33 (1960) S. 1100
- 1207 Watanabe, T., Fujii, T., Satake, K., J. Biochemistry 50 (1961) S. 197
- 1208 Watanabe, T., Nishida, H., Satake, K., Bull. chem. Soc. Japan 33 (1960) S. 1104
- 1209 Weaver, R. H., Herbst, E. J., J. biol. Chemistry 231 (1958) S. 637
- 1210 Wehmer, C., Die Pflanzenstoffe, Jena, 1929 u. 1931
- 1211 Weinstein, J., Cooper, D. J., Daniels, P. J. L., 12th Interscience Conference on Antimicrobial Agents and Chemotherapy, Atlantic City, N. J., 1972, Abstract 9; zit. in Kirk-Othmer (542)
- 1212 Weinstein, M. J., Luedemann, G. M., Oden, E. M., Wagman, G. H., Rosselet, J. P., Marquez, J. A., Coniglio, C. T., Charney, W., Herzog, H. L., Black, J., J. med. Chem. 6 (1963) S. 463
- 1213 Weinstein, M. J., Marquez, J. A., Testa, R. T., Wagman, G. H., Oden, E. M., Waitz, J. A., J. Antibiotics 23 (1970) S. 551; Chem. Abstr. 74 (1971) 84 374
- 1214 Weinstein, M. J., Wagman, G. H., Marquez, J. A., Testa, R. T., Oden, E. M., Waitz, J. A., J. Antibiotics 22 (1969) S. 253
- 1215 Weinstein, M. J., Wagman, G. H., Marquez, J. A., Testa, R. T., Waitz, J. A., Antimicrobial Agents Chemotherapy 7 (1975) S. 246
- 1216 Weiß, F., Diss. Leipzig, 1888; zit. v. Wehmer, C. (1210)
- 1217 Weiß, F., Arch. Pharmaz. 226 (1888) S. 666
- 1218 West, G. B., J. Pharmacy Pharmacol. 10 (1958) S. 589
- 1219 West, L. G., Johnson, I. T., McLaughlin, J. L., Lloydia 37 (1974) S. 633
- 1220 West, L. G., McLaughlin, J. L., Lloydia 36 (1973) S. 346
- 1221 Wheaton, T. A., Stewart, I., Analyt. Biochem. 12 (1965) S. 585
- 1222 Wheaton, T. A., Stewart, I., Lloydia 33 (1970) S. 244
- 1223 White, E. P., New Zealand J. Sci. Technol., Sect. B 25 (1944) S. 137; zit. v. Chen, K. K. (181)
- 1224 White, E. P., New Zealand J. Sci. Technol., Sect. B 33 (1952) S. 54
- 1225 White, E. P., New Zealand J. Sci. Technol., Sect. B 35 (1954) S. 451
- 1226 White, E. P., New Zealand J. Sci. Technol., Sect. B 38 (1957) S. 718
- 1227 White, E. P., New Zealand J. Sci. 12 (1969) S. 171
- 1228 White, E. P., New Zealand J. Sci. 13 (1970) S. 359

- 1229 Wicke, W., Liebigs Ann. Chem. 91 (1854) S. 121
- 1230 Wicke, W., Liebigs Ann. Chem. 124 (1862) S. 338
- 1231 Wicki, B., Bull. Soc. mycol. Genève 11 (1928) S. 14; zit. v. Eugster, C. H. (277)
- 1232 Wicki, B., Schweiz. Z. Pilzkd. 8 (1930) S. 42; zit. v. Eugster, C. H. (277)
- 1233 Wicki, B., Schweiz. Z. Pilzkd. 9 (1931) S. 78; zit. v. Eugster, C. H. (277)
- 1234 Wicki, B., Loup, F., Trav. Labor. Thérap. exper. Genève 13 (1930 - 1932) S. 9; zit. v. Eugster, C. H. (277)
- 1235 Wicki, B., Roch, M., Rev. méd. Suisse romande 55 (1935) S. 896; zit. v. Eugster, C. H. (277)
- 1236 Wiley, P. F., Argoudelis, A. D., Hoeksema, H., J. Amer. chem. Soc. 85 (1963) S. 2652
- 1237 Wilkinson, S., J. chem. Soc. (1958) S. 2079
- 1238 Williams, M., Barnes, R. F., Cassady, J. M., Crop. Sci. 11 (1971) S. 213; Chem. Abstr. 75 (1971) 31 359
- 1239 Willstätter, R., Heubner, W., Ber. dtsh. chem. Ges. 40 (1907) S. 3869
- 1240 Winkles; zit. v. Wicke, W. (1230)
- 1241 Winterfeld, K.; Chem. Zbl. (1942) I, 2 905; zit. v. Karrer, W. (498)
- 1242 Winterfeld, K., Pharmaz. Ztg. - Nachr. 88 (1952) S. 573
- 1243 Winterfeld, K., Bernsmann, G., Arch. Pharmaz. 293 (1960) S. 991
- 1244 Winterfeld, K., Kronenthaler, A., Arch. Pharmaz. 280 (1942) S. 103
- 1245 Winterstein, E., Reuter, C.; Chem. Zbl. (1912) II, 935; zit. v. Karrer, W. (498)
- 1246 Winterstein, E., Reuter, C., Korolev, R., Landwirtsch. Versuchsstat. 79/80 (1913) S. 541; zit. v. Boit, H.-G. (98)
- 1247 Winterstein, E., Reuter, C., Korolev, R., Landwirtsch. Versuchsstat. 79/80 (1913) S. 551; Chem. Zbl. (1913) I, 1989
- 1248 Winterstein, E., Wunsche, F., Hoppe-Seyler's Z. physiol. Chem. 95 (1915) S. 310
- 1249 Wittstein; zit. v. Wicke, W. (1230)
- 1250 Wittstein; Vjschr. prakt. Pharmaz. 8 (1859) S. 33; zit. v. Wehmer, C. (1210)
- 1251 Wojciechowska, B., Dombrowicz, E., Dissertat. pharmac. 18 (1966) S. 61
- 1252 Wolf, B., Nyc, J. F., Biochim. biophysica Acta 31 (1959) S. 208
- 1253 Wolfes, O., Arch. Pharmaz. 268 (1930) S. 327
- 1254 Wolfes, O., Merck's Jber. 50 (1936) S. 111
- 1255 Woodson, R., Philippine J. Sci. 60 (1932) S. 210; zit. v. Bernal-Santos, R. M. (76)
- 1256 Woolley, P., J. biol. Chemistry 122 (1937) S. 213
- 1257 Yamamura, S., Hirata, Y., Tetrahedron Letters (1964) S. 79

- 1258 Yang, T.-H., J. pharmac. Soc. Japan 82 (1962) S. 811
- 1259 Yang, T.-H., Lu, S.-T., Hsiao, C.-Y., J. pharmac. Soc. Japan 82 (1962) S. 816
- 1260 Yolton, D. P., Huettel, R. N., Simpson, D. K., Rode, L. J., J. Bacteriol. 109 (1972) S. 881
- 1261 Yoshimura, K., Chem. Zbl. (1910) II, S. 892
- 1262 Yoshimura, K., Z. Untersuch. Nahr.- u. Genußmittel 19 (1910) S. 253
- 1263 Yoshimura, K., Hoppe-Seyler's Z. physiol. Chem. 88 (1913) S. 334
- 1264 Yoshimura, K., J. jap. biochem. Soc. 1 (1922) S. 347
- 1265 Yoshimura, K., Biochem. Z. 274 (1934) S. 285; zit. v. Karrer, W. (498)
- 1266 Yoshimura, K., Biochem. Z. 274 (1934) S. 408
- 1267 Yoshimura, K., Kanai, M., Hoppe-Seyler's Z. physiol. Chem. 86 (1913) S. 178
- 1268 Yoshimura, K., Trier, G., Hoppe-Seyler's Z. physiol. Chem. 77 (1912) S. 290
- 1269 Zapata Ortiz, V., Paredes, G., Rev. Farm. Med. exper., Lima 1 (1948) S. 182; zit. v. Sandberg, F. (926)
- 1270 Zellner, J., Mh. Chem. 27 (1906) S. 283
- 1271 Zellner, J., Mh. Chem. 31 (1910) S. 617
- 1272 Zellner, J., Mh. Chem. 32 (1911) S. 1057
- 1273 Zellner, J., Mh. Chem. 34 (1913) S. 321
- 1274 Zellner, J., Mh. Chem. 36 (1915) S. 611
- 1275 Zellner, J., Mh. Chem. 38 (1917) S. 319
- 1276 Zellner, J., Mh. Chem. 39 (1918) S. 603
- 1277 Zellner, J., Mh. Chem. 41 (1920) S. 443
- 1278 Zellner, J., Mh. Chem. 44 (1923) S. 247
- 1279 Zellner, J., Arch. Pharmaz. 263 (1925) S. 169
- 1280 Zellner, J., Mh. Chem. 47 (1926) S. 681
- 1281 Zellner, J., Arch. Pharmaz. 272 (1934) S. 601
- 1282 Zellner, J., Chajes, R., Arch. Pharmaz. 263 (1925) S. 164
- 1283 Zellner, J., Hartenstein, L., Arch. Pharmaz. 262 (1924) S. 389
- 1284 Zellner, J., Hartmann, E., Mh. Chem. 50 (1928) S. 193
- 1285 Zellner, J., Porodko, Z., Arch. Pharmaz. 263 (1925) S. 170
- 1286 Zellner, J., Spitzer, H. A., Arch. Pharmaz. 265 (1927) S. 30
- 1287 Zellner, J., Zikmunda, E., Mh. Chem. 56 (1930) S. 197
- 1288 Zellner, J., Zikmunda, E., Mh. Chem. 56 (1930) S. 200
- 1289 Ziegler, H., Zimmermann, Privatmitt.; zit. v. Schubert, J., Radecke, H.-R. (975)
- 1290 Zlataroff, A., Z. Untersuch. Nahr.- u. Genußmittel 31 (1916) S. 18
- 1291 Zopf, W., Liebigs Ann. Chem. 297 (1897) S. 271
- 1292 Ber. dtsh. chem. Ges. 18 (1885) S. 2515; zit. v. Nottbohm, F. E Mayer, F. (779)
- 1293 Merck's Jber. (1893) S. 13; zit. v. Boit, H.-G. (98)
- 1294 ohne Lit.; zit. v. Wicke, W. (1230)

Register

Acanthoidin	114	Belladin	114
Acanthoin	114	Benzylamin	88
Acetylcholin	59	Bokitamin	130
ADOT	122	3-Butenyl-trimethylammonium-	
1-Adrenalin	107	chlorid	55
Agmatin	66	n-Butylamin	7
Alkaloid a	59	t-Butylamin	15
Alkaloid b	59	Buxamin-A	141
allo-Muscarin	71	Buxamin-C	141
allo-Normuscarin	72	Buxamin-E	140
2-Aminoacetophenon	87	Buxaminol-E	140
2-Aminophenol	87	Buxandonin	144
n-Amylamin	8	Buxazidin-B	149
Angolamycin	171	Buxitrienin-C	142
Antibiotikum 66-40-B	81	Buxocyclamin-A	143
Antibiotikum 66-40-D	81	Buxocyclin	150
Antibiotikum A-396-I	84	Buxomegin	134
Antibiotikum G-148	81	Buxpsiin	142
Antibiotikum J1-20-A	81	Buxtauin	145
Antibiotikum J1-20-B	81		
Antibiotikum NK-1001	79	Cadaverin	30
Antibiotikum NK-1003	76	Candicin	125
Antibiotikum NK-1012-1	79	Carbomycin-A	170
Antibiotikum NK-1012-2	76	Cassaidin	57
Antibiotikum SF-733	77	Cassain	57
Antibiotikum SF-837-A <sub>2</sub>	166	Cassamidin	57
Antibiotikum SF-837-A <sub>3</sub>	166	Cassamin	57
Antibiotikum SF-837-A <sub>4</sub>	166	Cholin	38
Antibiotikum SS-56-A	75	Chonemorphin	128
Antibiotikum SS-56-B	75	Cirramycin-A <sub>1</sub>	168
Antibiotikum SS-56-C	84	Cirramycin-B <sub>1</sub>	170
Antibiotikum YC-17	161	Corynein	126
Antibiotikum YL-704-A	166	Coumidin	57
Antibiotikum YL-704-B <sub>1</sub>	165	Coumingin	58
Antibiotikum YL-704-C <sub>2</sub>	165	Cryptopleurospermin	117
Antibiotikum YL-704-W <sub>1</sub>	166	Cyclobuxamin	146
Antibiotikum YL-704-W <sub>2</sub>	166	Cyclobuxin-B	147
Aporhinmethin	118	Cyclobuxin-D	147
Atherosperminin	118	Cyclobuxomicrein	153



Cyclobuxophyllin	148	2-Desmethyldesacetylcolchicin	120
Cyclobuxophyllinin	148	Desoxy-16-buxidienin-C	141
Cyclobuxosuffrin	148	Destomycin-A	84
Cyclobuxoviridin	154	Destomycin-B	84
Cyclobuxupalin-C	150	Destomycin-C	85
Cyclokoreanin-B	154	Di-n-butylamin	22
Cyclomalayanin-B	153	Di-sec-butylamin	22
Cyclomicrobuxein	154	Dictyodiamin	129
Cyclomicrobuxin	145	Dictyolucidamin	155
Cyclomicrophyllidin-A	152	Dictyolucidin	155
Cyclomicrophyllin-A	151	Dictyophlebin	129
Cyclomicrophyllin-B	151	Diethylamin	22
Cyclomicrophyllin-C	151	Dihydrocyclo-microphyllidin-A	150
Cyclomikuranin	154	Dihydrocyclo-microphyllin-A	147
Cyclopapilosin-D	144	Dihydrocyclo-microphyllin-F	147
Cycloprotobuxin-A	144	Dihydroholaphyllamin	130
Cycloprotobuxin-C	143	Dihydrojoubertiamin	116
Cycloprotobuxin-D	143	Dihydrokurchessin	129
Cycloprotobuxin-F	143	Dihydrostreptomycin	68
Cyclorolfeibuxin-C	147	Di-isobutylamin	23
Cyclorolfein	145	N,N'-Diisopentenylguanidin	65
Cyclosuffrobuxin	148	Di-isopropylamin	23
Cyclosuffrobuxinin	148	3,5-Dimethoxy-4-hydroxy-	
Cyclovirobuxein-A	151	phenylethylamin	113
Cyclovirobuxein-B	151	$\beta,\beta$ -Dimethylacryl-cassain	58
Cyclovirobuxin-A	147	Dimethylamin	20
Cyclovirobuxin-B	147	2-Dimethylaminoethanol	27
Cyclovirobuxin-C	147	1-Dimethylaminoethyl-3-hydro-	
Cyclovirobuxin-D	146	xy-4-methoxy-phenanthren	118
		1,2-Dimethyl-4,5-diaminobenzol	87
Daunomycin	123	N,N-Dimethyl-3,4-dimethoxy- $\beta$ -	
Dehydrojoubertiamin	116	methoxyphenylethylamin	109
Demecolcin	121	N,N-Dimethyl-3,4-dimethoxy-	
3-Demethylmezcalin	112	phenylethylamin	109
N-Demethyl-mitiphyllin	132	N,N-Dimethylfuntumin	130
3-Demethyltrichocerein	113	N,N-Dimethyl-4-methoxyphenyl-	
Dendrowardin	73	ethylamin	108
Desacetylcolchicein	120	N,N-Dimethyl-3-methoxytyramin	112
Desacetylcolchicin	120	N,N-Dimethyl-phenylethylamin	92
Desacyl-epipachysamin-A	128	Di-n-propylamin	22
2-Desmethyldemecolcin	121	Dopamin	105
3-Desmethyldemecolcin	121	Dopamin-3-O-glykosid	115

L-Ephedrin	94	Halostachin	92
epiallo-Muscarin	71	n-Heptylamin	9
Epi-20N-methylparavallarin	158	Hesperalin	62
epi-Muscarin	71	1,6-Hexandiamin	31
(+)-epi-Muscarin	70	n-Hexylamin	8
Epinin	106	Holacurtenin	131
epi-Normuscarin	72	Holacurtin	131
Epipachysamin-F	129	Holadysamin	139
20-Epi-paravallarin	157	Holadysin	135
Erythromycin-A	162	Holafebrin	133
Erythromycin-B	162	Holafebrin-O-glucosid	137
Erythroplamin	58	Holamin	134
Erythropleguin	58	Holaminol	134
Espinomycin-A <sub>2</sub>	166	Holantosin-C	159
Ethanolamin	16	Holantosin-D	160
Ethylamin	5	Holaphyllamin	134
		Holaphyllidin	135
Funtumaftrin-B	128	Holaphyllin	134
Funtumaftrin-C	128	Holaphyllinol	135
Funtumidin	128	Holarosin-A	132
Funtumin	130	Holarrhena-Alkaloid-C	135
Funtuphyllamin-A	127	Holarrhidin	138
Funtuphyllamin-B	127	Holarrhimin	138
Funtuphyllamin-C	128	Holasantosin-A	159
		Holasantosin-B	160
Galactosamin	74	Homospermidin	35
Galegin	65	Homoveratrylamin	108
Garamin	77	Hordenin	102
Gentamycin-A <sub>1</sub>	79	o-Hydroxybenzylamin	88
Gentamycin-A <sub>2</sub>	79	p-Hydroxybenzylamin	88
Gentamycin-A <sub>3</sub>	79	19-Hydroxycassain	58
Gentamycin-B	80	2 $\alpha$ -Hydroxy-20-epi-N-methyl- paravallarin	157
Gentamycin-B <sub>1</sub>	80	4-Hydroxygalegin	65
Gentamycin-C <sub>1</sub>	80	9 $\alpha$ -Hydroxy-25-isojurubidin	156
Gentamycin-C <sub>1a</sub>	80	9 $\alpha$ -Hydroxy-jurubidin	156
Gentamycin-C <sub>2</sub>	80	3-Hydroxy-4-methoxyphenyl- ethylamin	112
Gentamycin-C <sub>2b</sub>	81	6-Hydroxynobilin	72
Gentamycin-Komplex	85	7 $\alpha$ -Hydroxy-paravallarin	158
Gentamycin-X <sub>2</sub>	80	7 $\beta$ -Hydroxy-paravallarin	158
Gitingensin	157	11 $\alpha$ -Hydroxy-paravallarin	158
Glucosamin	74		
Guanidin	64		

2-Hydroxyputrescin	31	Leucomycin-A <sub>7</sub>	165
Hygromycin-B	84	Leucomycin-A <sub>8</sub>	165
		Leucomycin-A <sub>9</sub>	165
Irehamin	133	Leucomycin-Komplex	166
Irehdiamin-A	134	Leucomycin-U	165
Irehdiamin-B	135	Leucomycin-V	165
Ismin	116	Lividamin	76
Isoamylamin	12	Lividomycin-A	85
Isobutylamin	10	Lividomycin-B	83
Isoferulasäurecholinester	61		
Isojuripidin	156	Macromerin	109
Isojurubidin	156	Magnamycin-B	166
Isopentenylputrescin	31	Malouetin	160
Isopropylamin	9	Mannosidohydroxystreptomycin	68
Isopropyl-n-butylamin	23	Mannosidostreptomycin	68
β-Iso-rhodomycin-II	124	Mannosylparomomycin	85
Ivorin	57	Maridomycin-I	169
		Maridomycin-II	169
Joubertiain	116	Maridomycin-III	169
Jurubidin	156	Maridomycin-IV	169
Jurubin	155	Maridomycin-V	169
		Maridomycin-VI	169
Kanamycin-A	79	Maridomycin-G	169
Kanamycin-B	79	Megalomycin-A	163
Kanamycin-C	79	Megalomycin-B	163
Kibatalin	158	Megalomycin-C <sub>1</sub>	163
Kuramerin	63	Megalomycin-C <sub>2</sub>	163
Kurchalin	137	Metanephrin	112
Kurchessin	135	3-Methoxytyramin	111
Kurchilin	136	8-Methoxy-uvariopsin	119
Kurchiphyllamin	136	Methylamin	1
Kurchiphyllin	136	2-Methylaminoethanol	23
		N-Methylbenzylamin	88
Lanitin	158	Methyl-n-butylamin	22
Lanitinin	158	2-Methylbutylamin	15
Leonticin	115	N-Methyl-demecolcin	121
Leonurin	66	N-Methyl-3,4-dimethoxy-β-	
Leucomycin-A <sub>1</sub>	165	methoxyphenylethylamin	109
Leucomycin-A <sub>3</sub>	165	N-Methyl-3,4-dimethoxyphenyl-	
Leucomycin-A <sub>4</sub>	165	ethylamin	109
Leucomycin-A <sub>5</sub>	165	N-Methyl-L-ephedrin	95
Leucomycin-A <sub>6</sub>	165	Methylethylamin	21



N-Methylfuntumin	130	Norerythrosthachamin	56
Methylguanidin	64	Nor-Macromerin	109
Methylholaphyllin	135	Normuscarin	72
N <sup>3</sup> -Methylholarrhimin	139	D-Norpseudoephedrin	93
N <sup>20</sup> -Methylholarrhimin	138	Noruvariopsamin	118
N-Methylhomotyramin	113	Nudicaulin	122
N-Methyl-3-hydroxy-4,5-di- methoxyphenylethylamin	113	Octopamin	99
Methyl-isoamylamin	22	n-Octylamin	9
Methyl-isobutylamin	22	Oleandomycin	171
Methyl-isopropylamin	22	Oxystreptomycin	68
N-Methyl-metanephrin	112		
N-Methyl-4-methoxyphenyl- ethylamin	107	Pachysamin-A	129
N-Methyl-3-methoxytyramin	111	Pachysandrin-C	128
N-Methylmezcalin	110	Pachysandrin-D	129
N-Methylparavallarin	158	Paravallaridin	158
N-Methyl- $\beta$ -phenylethylamin	92	Paravallarin	158
N-Methyl-D-pseudoephedrin	95	Paromamin	76
$\beta$ -O-Methylsynephrin	102	Paromomycin-I	83
N-Methyltyramin	100	Paromomycin-II	83
O-Methyltyramin	107	Paromomycin-Komplex	86
Methymycin	161	$\beta$ -Phenylethylamin	89
Mezcalin	110	Phenylethyltrimethylammonium- salz	125
Mitiphyllin	132	Pierardin	116
Muscaridin	55	Pikromycin	161
Muscarin	68	Platenomycin-A <sub>o</sub>	166
		Prangosin	117
Narbomycin	161	1,2-Propandiamin	31
Nebramin	76	1,3-Propandiamin	27
Neomethymycin	161	Propionylcholin	61
Neomycin-A	77	n-Propylamin	6
Neomycin-B	83	n-Propyl-isopropylamin	22
Neomycin-Komplex	86	D-Pseudoephedrin	94
Niddamycin	166	Pterogynin	65
Nobilin	72	Putrescin	28
Nobilonin	72		
Noradrenalin	106	o-( $\alpha$ -L-Rhamnopyranosyloxy)- benzylamin	115
Norbuxamin	140	$\beta$ -Rhodomycin-I	124
Norcassamidin	56	$\gamma$ -Rhodomycin-I	124
L-Norephedrin	93	$\beta$ -Rhodomycin-II	124
Norerythrosthachaldin	57		

γ-Rhodomycin-II	124	Thaliglucin	119
γ-Rhodomycin-III	124	Thaliglucinon	119
γ-Rhodomycin-IV	124	Thaspin	120
Rhodomycin-X	124	Tigloylcyclovirobuxein-B	152
Rhodomycin-Y	124	Tobramycin	79
Rosamycin	168	Trehalosamin	75
		Trichocerein	111
Salicifolin	126	Triethylamin	27
Sarcococca-Alkaloid-B	137	N,N',N''-Triisopentenyl-	
Sarcococca-Alkaloid-C	134	guanidin	66
Sinapin	61	Trimethylamin	23
Sisomycin	81	Trimethylaminoxid	55
Speciosin	122	Tripopylamin	27
Spectinomycin	78	Tylosin	167
Spermidin	31	Tyramin	96
Spermin	35		
Sphaerophysin	67	Uvariopsamin	118
Spiramycin-A	167	Uvariopsamin-N-oxid	126
Spiramycin-B	167	Uvariopsin	118
Spiramycin-C	167		
Streptomycin	68	Validamycin-A	82
Synephrin	101	Validamycin-B	82
		O-Vanilloyl-cyclovirobuxein-D	150
Terminalin	128	Veratroylcholin	62
Tetramethylholarrhidin	139	Verdamycin	82
Tetramethylholarrhimin	139		
Tetramethylputrescin	31	Xylostacin	78
Tetramin	38		
Thalicsin	119	Zimtsäure-dimethylamino-	
Thalictuberin	119	ethanolester	58