

## Contents

**Preface** *xi*

**List of Abbreviations** *xiii*

- 1 Introduction** *1*  
References *5*
  
- 2 Aromatic Polyketide Glycosides** *7*  
Landomycin A *7*  
Olivomycin A *13*  
Ciclamicin *17*  
Vineomycin B2 *20*  
Trioxacarcin *25*  
Daunorubicin *29*  
Aquayamycin *30*  
Vineomycin A<sub>1</sub> *30*  
Derhodinosylurdamicin A *31*  
Jadomycins *31*  
Tan-1085 *33*  
Benanomycins and Pradimicins *33*  
Pluramycins *34*  
Marmycins *35*  
Cassialoin *36*  
FD-594 *36*  
Calixanthomycin A *38*  
Lactonamycin *38*  
Lomaiviticin A(-) *39*  
References *42*
  
- 3 Enediynes Glycosides** *47*  
Calicheamicin  $\gamma_1^1$  *48*  
Namenamicin *54*  
Shishijimicin A *56*  
Neocarzinostatin Chromophore *58*

Maduropeptin Chromophore 59  
References 61

#### 4 **Flavonoid Glycosides** 63

Flavonol 3-*O*-glycosides 65  
    Quercetin 3-sophorotrioside 65  
    SL0101 66  
Flavone and Isoflavone 7-*O*-Glycosides 67  
    A-76202 67  
Flavonol 3-*O*- and 7-*O*-Bisglycosides 70  
    Kaempferitrin 70  
Flavonol 5-*O*-Glycosides 71  
    Camellianin B 71  
Flavone 6-*C*-Glycosides 72  
    Chafuroside 72  
Cyanidin 3-*O*-Glycosides 74  
    Cyanidin 3-*O*- $\beta$ -D-glucoside 74  
Other Examples 75  
    Quercetin 3-*O*- $\beta$ -D-Glucuronide 75  
    Quercetin 3-*O*-(2''-Galloyl)- $\alpha$ -L-arabinopyranoside 75  
    Isoquercitrin Coumarate 75  
    Kaempferol 3-*O*-(3'',6''-di-*O*-*E*-*p*-coumaroyl)-  
         $\beta$ -D-Glucopyranoside 76  
    Platanoside 76  
    Quercetin-3-*O*-trisaccharide 79 78  
    Houttuynoid A 78  
    Daidzin, Genistin, Ononin, and Sissotrin 78  
    Apigenin 7-*O*-Cellobioside 79  
    Suttellarin 80  
    Calabricoside A 80  
    Kaempferol-3-*O*-7-*O*-bisglycoside 88 81  
    Vicenines 81  
    Carambolaflavone A 83  
    Flavocommeline 83  
    Schaftoside 84  
    Pelargonidin 3-*O*-6''-*O*-acetyl- $\beta$ -D-glucopyranoside 85  
    Cyanidin 4'-*O*-methyl-3-*O*-glucoside 86  
References 86

#### 5 **Macrolide Glycosides** 89

Erythromycin 89  
Apoptolidin A 94  
Spinosyn A (Lepicidin A) 98  
Tiacumicin B 103  
Pikromycin 106

- Polycavernoside A 106
- Auriside A 107
- Lyngbyaloside B 108
- Avermectin 109
- Formamicin 109
- Tylosin 109
- Mangrolide 112
- Amphotericin B 113
- Aldgamycins 113
- Mycinamicin IV 114
- References 115
  
- 6 Nucleosides 119**
  - Tunicamycin 119
  - Hikizimycin 126
  - Herbicidins 128
  - A201A 131
  - Amipurimycin 134
  - Caprazamycin 137
  - Polyoxin J 141
  - Octosyl Acid A 142
  - HF-7 143
  - Malayamycin 143
  - Capuramycin 144
  - Muraymycin 144
  - Plicacetin, Streptocytosine A, and Amicetin 145
  - A-94964 146
  - Miharamycin B 148
  - References 149
  
- 7 Peptide Glycosides 153**
  - Vancomycin 155
  - Bleomycin A2 159
  - Mannopectimycin 165
  - Syndecan 170
  - Lipoglycopeptide Arylomycin 171
  - References 172
  
- 8 Resin Glycosides 175**
  - Calonyctin A 176
  - Tricolorin 179
  - Ipomoeassin 185
  - Woodrosin I 189
  - Batatosides L 191
  - Batatin VI 191

Merremoside D	192
Murucoindins	192
References	195

## 9 Steroid Glycosides 197

Cholestane Type Steroid Glycosides	197
OSW-1	197
Periploside A	201
Luzonicosides and Sepositoside	204
Cardenolide Type Steroid Glycosides	207
Digitoxin	207
Furostane Type Steroid Glycosides	212
Furostan Saponin and Methyl Protodioscin	212
Spirostan Type Steroid Glycosides	214
Desgalactotigonin	214
Forbeside E	216
Osladin	216
Pavonimin	218
Dioscin	218
Polyphyllin D	219
Maidong Saponin C	220
Xiebai Saponin I	221
Candicanoside A	222
Ouabain	222
Timosaponin BII	223
Solamargine	223
Rhodexins	225
Goniopectenoside B	226
Astrosterioside A	226
Linckoside	227
Trewianin	228
P57	228
Oleandrin	230
References	231

## 10 Triterpenoid Glycosides 233

Ciwujianoside C3	233
QS-21	234
Lobatoside E	238
Ginsenosides	239
Echinaside A	242
Anemocleomoside B	245
Betavugaroside III	247
$\Delta^{20}$ -Ginsenosides	247
Flaccidoside II	248

Asiaticoside	249
Pulsatilla Saponin D	249
Lotoidoside D	250
Astragalosides	252
Chikusetsu Saponins	253
References	253
<b>11 Miscellaneous Glycosides</b>	<b>257</b>
Allosamidin	257
Staurosporine	257
Everninomicin 13,384-1	259
Brasilicardins	263
Efrotomycin	266
Peyssonoside A	267
Amycolamicin/Kibdelomycin	268
Strictosidine-Type Indole Alkaloid Glycosides	268
Cotylenin A	270
Pyrolaside B	271
References	273
<b>Index</b>	<b>275</b>

