Shakhnoza S. Azimova
Editor

Ashraf I. Saidkhodzhaev
Co-Editor

Natural Compounds

Natural Sesquiterpene Esters

Plant Sources, Structure and Properties

With 1007 Figures and 248 Tables

Springer

Table of Contents

Part 1

The Structural Abbreviations of Acid Occurrence of Sesquiterpene Esters in Plant Species

Apiaceae

Farnesanes – Diesters

Physicochemical and Pharmacological Properties of Sesquiterpene Esters - Cyclic

The Monocyclic Sesquiterpene Esters

Bisabolanes – Triesters

Bisabolanes – Tetraesters

Curcumenes – Monoesters

Curcumenes – Diesters

Curcumenes – Triester

Elemanes – Monoesters

Elemanes – Diesters

Germacranes – Germacranes – Monoesters

Germacranes – Diesters

Germacranes – Triesters

Germacranes – Tetraesters

Furanogermacranes – Monoesters

Humulanes – Monoesters

Cadinanes

Cadalenes – Monoesters

Cadalenes – Triester

Furanocadinanes – Monoesters

Caryophyllanes – Monoesters

Caryophyllanes – Diesters

Daucanes (Carotanes) – Monoesters

Daucanes (Carotanes) – Diesters

Daucanes (Carotanes) – Triesters

Eremophilanes – Eremophilanes – Monoesters

Eremophilanes – Eremophilanes – Diesters

Furanoeremophilanes – Furanoeremophilanes Monoesters

Furanoeremophilanes – Diesters

Part 2

Occurrence of Sesquiterpene Esters in Plant Species

Apiaceae

Asteraceae

Magnoliaceae

Marsupellaceae

Plagiochilaceae

Podocarpaceae

Solanaceae

Ulmaceae

Valerianaceae

Physicochemical and Pharmacological Properties of Sesquiterpene Esters

The Bicyclic Sesquiterpene Esters

Eudesmanes (Selinanes) – Monoesters

Eudesmanes (Selinanes) – Diesters

Eudesmanes (Selinanes) – Triesters

Eudesmanes (Selinanes) – Tetraesters

Furanoeudesmanes – Monoesters

Guaianes – Monoesters

Guaianes – Diesters

Guaianes – Triesters

Oplopanes – Monoesters

Oplopanes – Diesters

Oplopanes – Triesters

Oplopanes – Tetraesters

Oplopanes – Pentaester

Thapsanes – Monoesters

Thapsanes – Diester

Thapsanes – Di-14,15-epoxythapsane

Valerananes – Monoester

Other Bicyclic Sesquiterpene Esters

Bergamotene

Carabrane

Drimane

Himachalanes – Monoesters

Himachalanes – Diesters

Valerane

Pseudoguaianes – Monoesters

Sesquisabinenes – Monoesters

Other Type

The Tricyclic Sesquiterpene Esters

Aromadendranes – Monoesters

Aromadendranes – Diester

2,3-*seco*-Aromadendranes – Monoesters

2,3-*seco*-Aromadendranes – Diesters

2,3-*seco*-Aromadendranes – Triesters

2,3-*seco*-Aromadendranes – Tetraesters

Gymnomitranes – Monoesters

Gymnomitranes – Diester

Longipinanes – Monoesters

Longipinanes – Diester

Longipinanes – Triesters

Silphinenes – Monoesters

Silphinenes – Diesters

Isocedranes – Monoesters

Isocedranes – Diesters

Isocedranes – Triesters

Isocedranes – Tetraesters

Other Tricyclic Sesquiterpene Esters

Cedranes – Monoesters

Cyperenes – Monoesters

Cyperenes – Diesters

Presilphiperfols

Isocomene

Lindenenes – Monoesters

Modhephene

Rotundene

Santalene

Senoxyrine

Other Types

Shakhnoza S. Azimova
Editor

Natural Compounds

Triterpene Glycosides

Plant Sources, Structure and Properties

With 698 Figures and 747 Tables

Springer

Table of Contents

Part 1

Occurrence of Triterpene Glycosides in Plant Species

Physico-chemical and Pharmacological Properties of Triterpene Glycosides

Glycosides of Aglycones of Oleanene Type

Glycosides of Oleanolic Acid

Glycosides of Hederagenin

Glycosides of Echinocystic Acid

Glycosides of Presenegenin

Glycosides of Bayogenin

Glycosides of Polygalacic Acid

Glycosides of Protoaescigenin

Glycosides of Chichipegenin

Glycosides of Gymnemagenin

Glycosides of Other Aglycones

Part 2

Occurrence of Triterpene Glycosides in Plant Species

Physicochemical and Pharmacological Properties of Triterpene Glycosides

Glycosides of Aglycones of Oleanene Type

Glycosides of Aglycones of Ursene Type

Glycosides of Aglycones of Dammarane Type

Glycosides of Aglycones of Cucurbitane Type

Miscellaneous Glycosides

Shakhnoza S. Azimova
Editor

Valentina I. Vinogradova
Co-Editor

Natural Compounds

Flavonoids

Plant Sources, Structure and Properties

With 1015 Figures and 534 Tables

Springer

Table of Contents

Occurrence of Flavonoids in Plant Families

Family Fabaceae Lindl.

Family Lamiaceae Lindl.

Family Resedaceae S.F.Gray

Family Rutaceae Juss

Family Scrophulariaceae Juss.

Physicochemical and Pharmacological Properties of Flavonoids

Flavons and Flavon-3-ols

Flavanones and Flavanon-3-ols

Isoflavonoids

Isoflavanones

Isoflavans

Isoflav-3-Enes

Biflavonoids

Lignanes

Lignoflavonoids

Pterocarpans

Coumestans

Arylcoumarins

Licocoumarones and Aurons

Benzofuranes

Chromones

Chalcones

Dihydrochalcones and Glicophenones

Dibenzylmethanes

Arenes

Dihydrophenantrenes

Benzyl Ketones

Stilbenes

Dihydrostilbenes

Chalconstilbenes

Flavanonstilbenes

Oligostilbenoids

Phenyl Propanoidic Glucosides

Shakhnoza S. Azimova
Editor

Natural Compounds

Phytoecdysteroids

Plant Sources, Structure and Properties

With 356 Figures and 299 Tables

Springer

Table of Contents

Occurrence of Phytoecdysteroids in Plant Species

Physicochemical and Biological Properties of Phytoecdysteroids

Phytoecdysteroids and Their Conjugates

Shakhnoza S. Azimova
Editor

Marat S. Yunusov
Co-Editor

Natural Compounds

Alkaloids

Plant Sources, Structure and Properties

With 1410 Figures and 362 Tables

Springer

Table of Contents

Alkaloids

Plants, Structures, Properties

Physicochemical and Pharmacological Properties of Alkaloids

Amaryllidaceae Alkaloids

Amine, Amide, and Sulfur Containing Alkaloids

Colchicine Alkaloids

Diterpenoid Alkaloids

Indole Alkaloids

Isoquinoline Alkaloids

Aporphine Alkaloids

Benzylisoquinoline Alkaloids

Bisisoquinoline Alkaloids

Diisoquinoline Alkaloids

Miscellaneous Isoquinoline Alkaloids

Nitraria Alkaloids

Pyridine, Piperidine, and Pyrrolidine Alkaloids

Pyrrolizidine Alkaloids

Quinazoline and Quinazolone Alkaloids

Quinoline Alkaloids

Quinolizidine Alkaloids

Steroidal Alkaloids

Tropane Alkaloids

Shakhnoza S. Azimova
Editor

Natural Compounds

Cycloartane Triterpenoids and Glycosides

Plant Sources, Structure and Properties

With 862 Figures and 688 Tables

Springer

Table of Contents

Cycloartane Triterpenoids

4-Monomethylcycloartane Triterpenoids

4,4-Desmethylcycloartane Triterpenoids

4-Monomethylcycloartane Glycosides