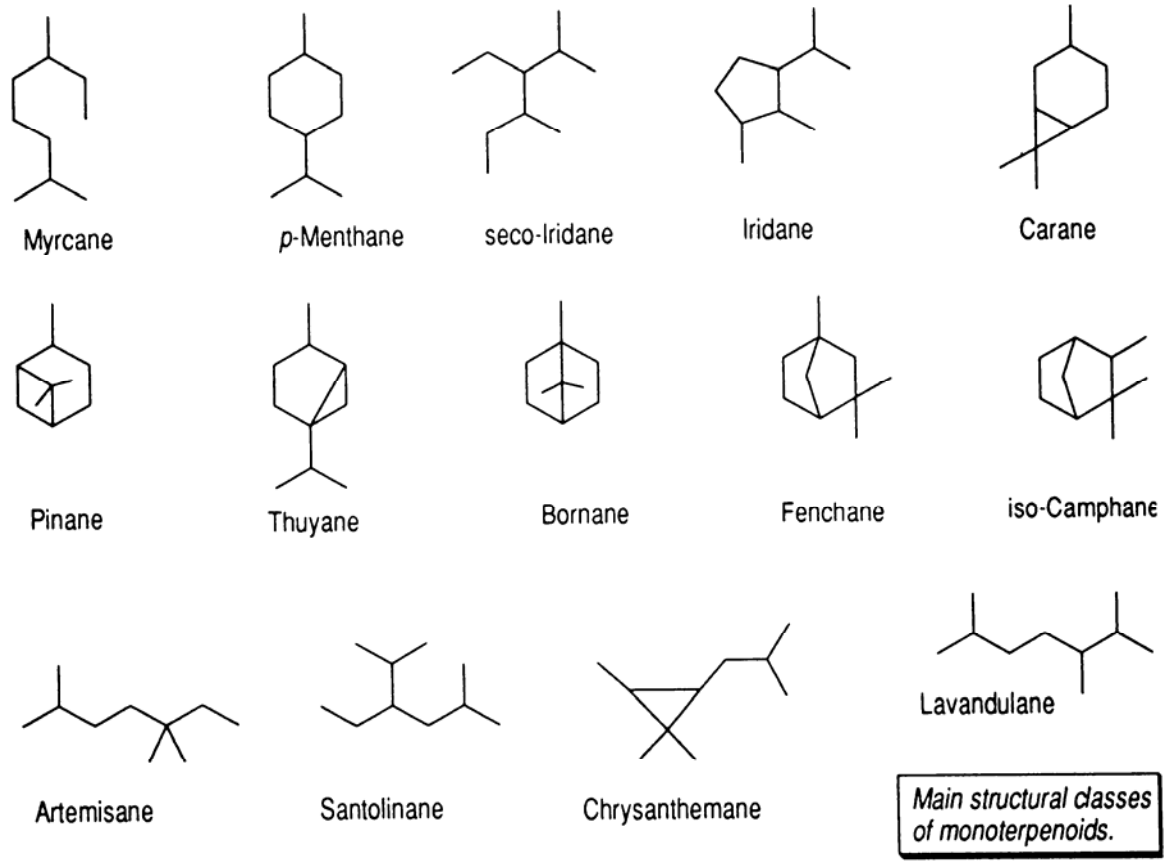
2.7.1 Monoterpeny

Monoterpeny běžných struktur

Vznikají ze dvou isoprenoidních jednotek (C_{10}) a mohou být:

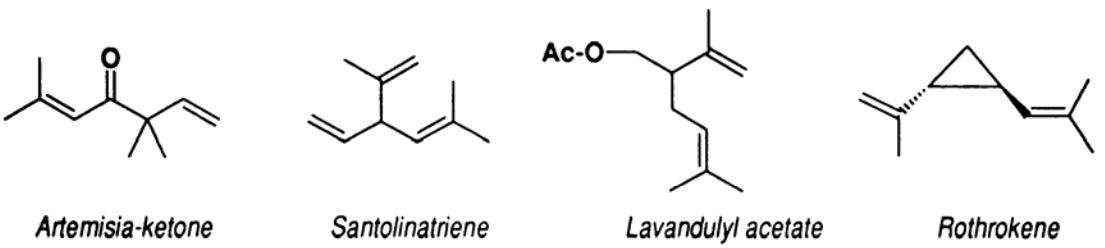
- acyklické: (myrcan, sekoiridan)
- monocyklické: (p-menthan, iridan)

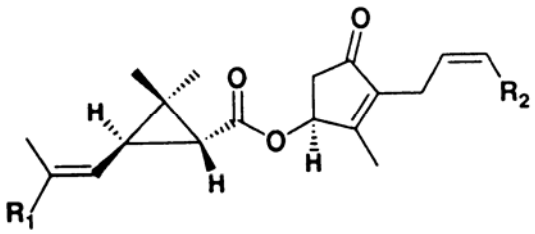
- Pinaceae - *Pinus* sp., Cupressaceae - *Thuja* sp. aj.
- Apiaceae – *Foeniculum vulgare*, *Carum carvi* aj.
- Lamiaceae – *Rosmarinus officinalis*, *Salvia* sp. aj.
- Asteraceae – *Chamomilla* sp., *Anthemis* sp., *Achillea millefolium* aj.



Monoterpeny „nepravidelných“ struktur

- Lamiaceae (*Lavandula*), Asteraceae (*Leucanthemum*, *Tanacetum*, *Chrysanthemum*)





$R_1 = CH_3$ (pyrethric acid): *series I*
$R_1 = CO_2CH_3$ (chrysanthemic acid): *series II*

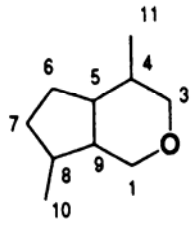
$R_2 = CH\text{-}CH_2$: *Pyrethrins I and II*
$R_2 = CH_3$: *Cinerins I and II*
$R_2 = CH2CH_3$: *Jasmolins I and II*

$R_1 = CH_3$, $R_2 = H$: (*S*)-bioallethrin

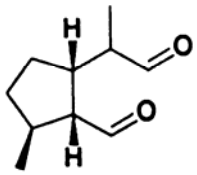
Iridoidy

Obsahují cyklopentano[c]pyranoidový skelet, tzv. iridanový (cis-2-oxa-bicyklo-[4,3,0]-nonan); dosud je známo zhruba 500 struktur:

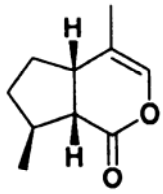
- iridodní glykosidy > 300 sloučenin
- sekoiridodní glykosidy > 100 sloučenin
- neglykosidické sloučeniny >100 sloučenin



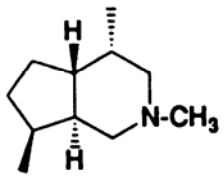
Iridane



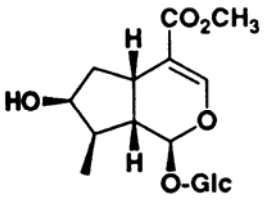
Iridodial



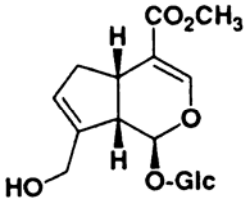
Nepetalactone



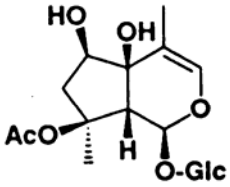
Skytanthine



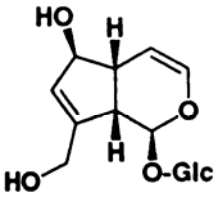
Loganin



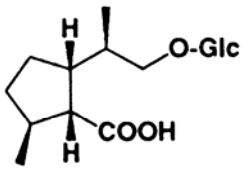
Geniposide



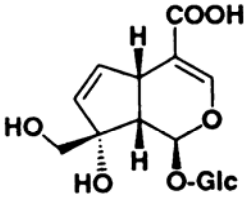
Lamioside



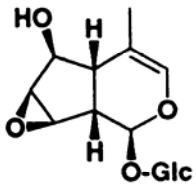
Aucubin



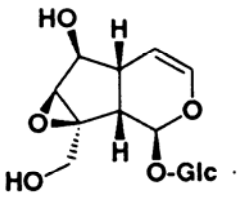
Nepetariaside



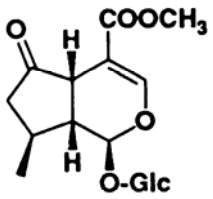
Monotropein



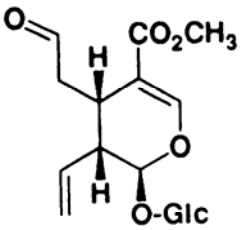
Deutzioside



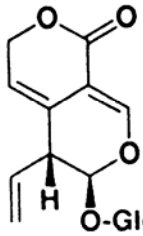
Catalpol



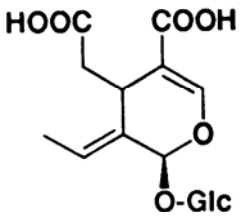
Verbenalin



Secologanin



Gentiopicroside



Oleoside

- Gentianaceae - *Gentiana* sp., *Swertia* sp.
- Valerianaceae - *Valeriana officinalis*

- Menyanthaceae - *Menyanthes trifoliata*
- Oleaceae - *Olea europaea*
- Verbenaceae - *Verbena officinalis*

Silice

Monoterpeny existují nejen jako uhlovodíky, ale především jako jejich deriváty: alkoholy, aldehydy, ketony, složitější jako estery; směs těchto látek často ve směsi se seksviterpeny je podstatnou částí silic.

Silice jsou významnou obsahovou složkou taxonů (Lamiaceae, Apiaceae, Asteraceae, Rutaceae, Lauraceae, Myrtaceae, Myristicaceae ad.)

Klejopryskyřice, oleoresiny

Mají polotekutou konzistenci; jedná se o směs silice a pryskyřice:

- Burseraceae - *Boswellia carterii* (Olibanum), *Commiphora myrrha* (Myrrha)
- Apiaceae - *Ferula galbaniflua* (Galbanum)
- Pinaceae - *Pinus* spp. (Terpentýn)
- Cupressaceae - *Juniperus communis*, aj.