

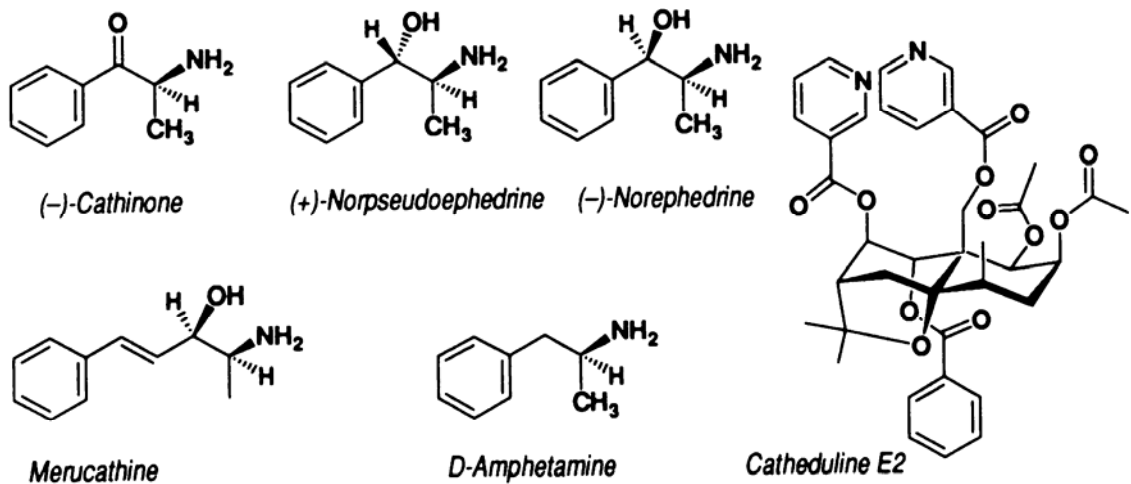
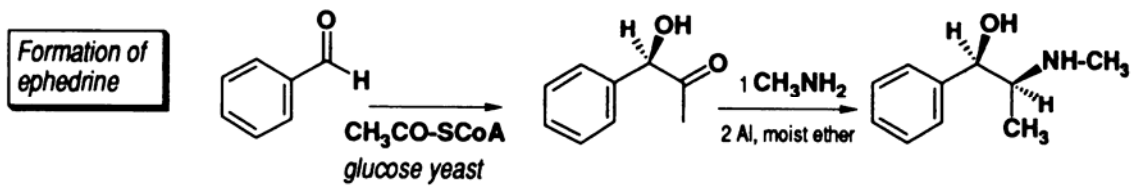
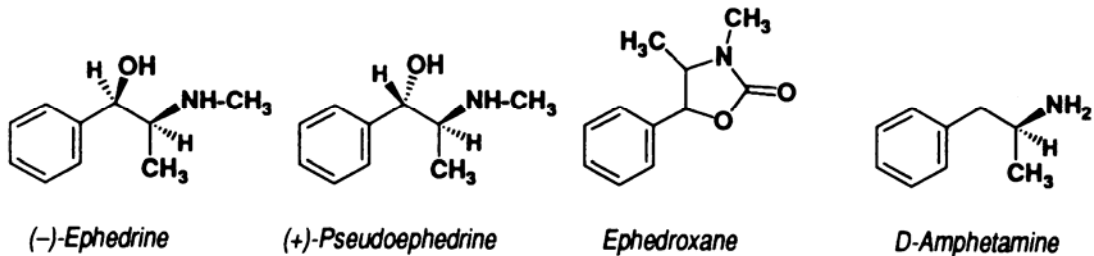
2.8.3 Alkaloidy z fenylalaninu a tyrosinu

2.8.3.1 Fenylethylaminy

☞ Ephedraceae - *Ephedra* sp.

☞ Rutaceae - *Citrus* sp.

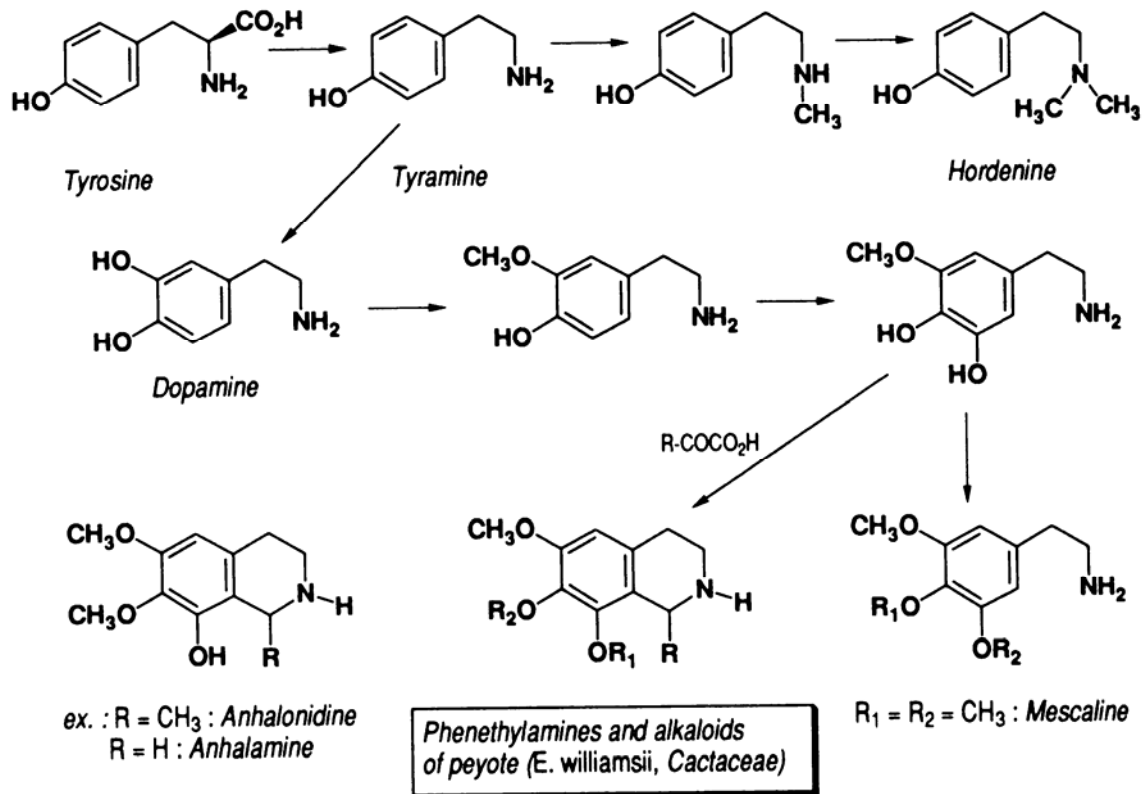
☞ Celastraceae - *Catha edulis*



2.8.3.2 Isochinolinové alkaloidy

2.8.3.2.1 Jednoduché tetrahydroisochinoliny

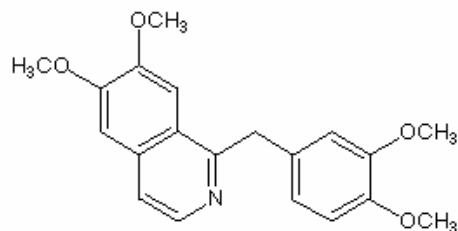
☞ Cactaceae - *Echinocactus williamsii*



2.8.3.2.2 Benzylisoquinoliny

Jednoduché benzylisochinoliny:

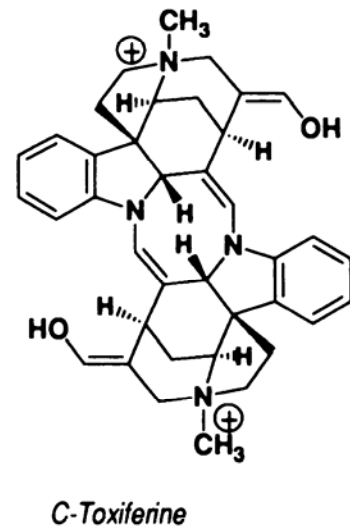
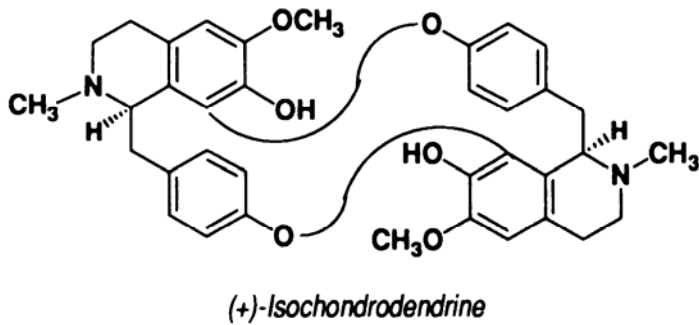
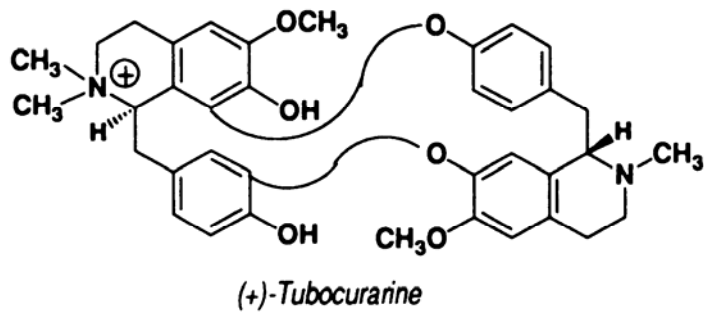
📁 Papaveraceae - *Papaver somniferum*



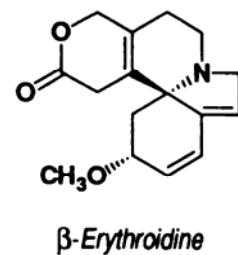
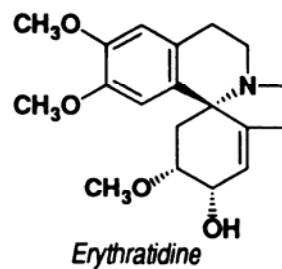
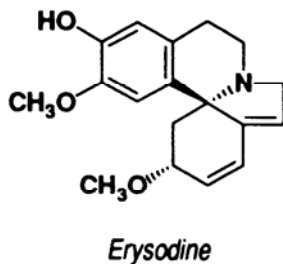
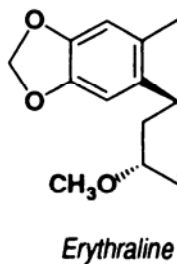
Bisbenzyltetrahydroisochinoliny

📁 Menispermaceae - *Chondrodendron* sp.

📁 Loganiaceae - *Strychnos* sp.



📁 Erythrina-alkaloidy (biologický účinek podobný kurare)



Aporfinové alkaloidy: ca 500 alkaloidů

📁 Annonaceae – *Anaxagorea* sp., *Annona* sp.

📁 Fumariaceae – *Corydalis* sp.

📁 Lauraceae – *Laurus nobilis*

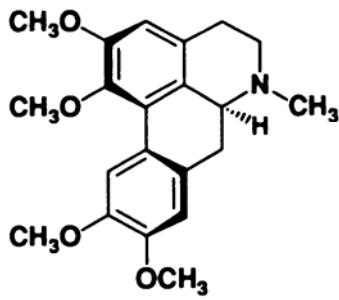
📁 Magnoliaceae – *Liriodendron tulipifera*

📁 Menispermaceae – *Anamirta cocculus*

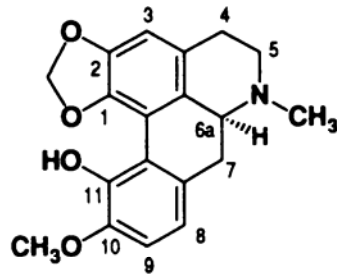
📁 Monimiaceae – *Peumus boldus*

📁 Papaveraceae – *Eschscholzia californica*, *Chelidonium majus*

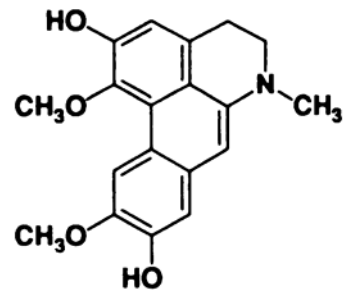
📁 Ranunculaceae – *Caltha palustris*, *Caulophyllum* sp., *Aconitum* sp.



S (+)-Glaucine



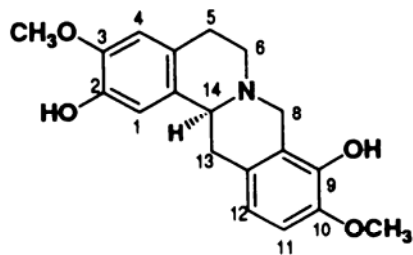
S (+)-Bulbocapnine



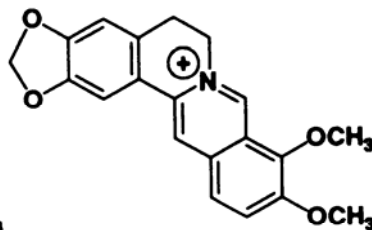
Dehydroboldine

Protoberberiny a jejich deriváty

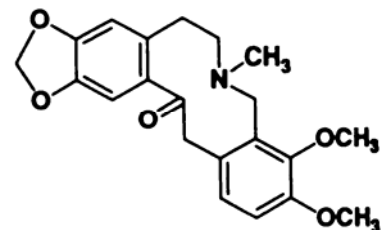
- ☞ Annonaceae – *Annona* sp.
- ☞ Berberidaceae – *Berberis* sp.
- ☞ Fumariaceae - *Fumaria officinalis*
- ☞ Menispermaceae - *Jateorhiza palmata*
- ☞ Papaveraceae - *Chelidonium majus*, *Sanguinaria canadensis*, *Papaver rhoeas*
- ☞ Ranunculaceae - *Hydrastis canadensis*



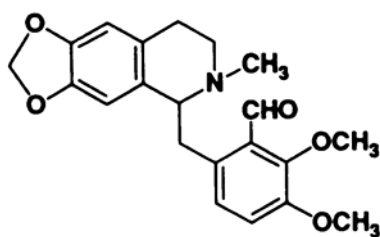
Scoulerine



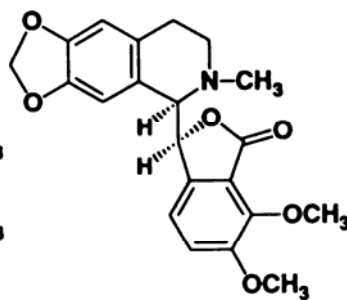
Berberine



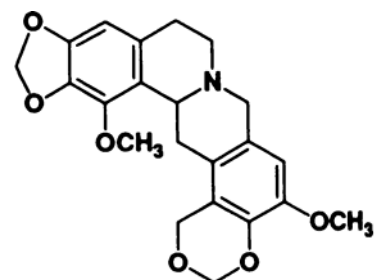
Allocryptopine



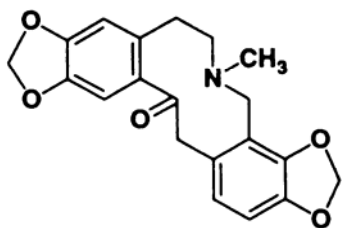
*Canadaine
(secoberberine)*



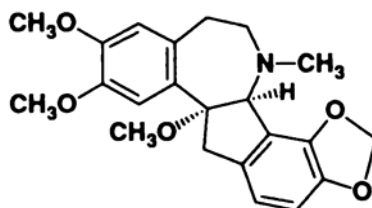
(-)-β-Hydrastine



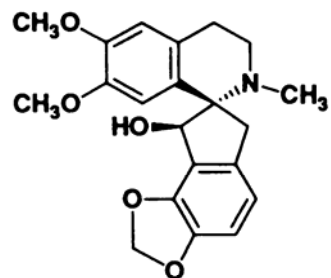
Orientalidine



Protopine



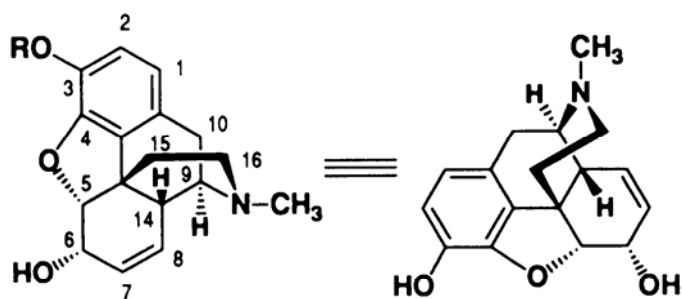
Fumaritrine



Fumaricine

Morfinany

☞ Papaveraceae - pouze *Papaver* sp. (rozdíl od protoberberinů)

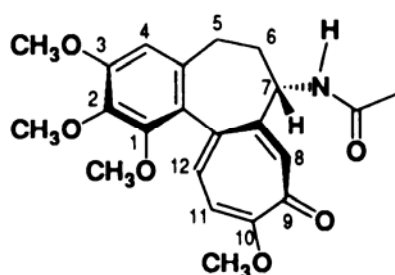


R = H : *Morphine*
R = CH₃ : *Codeine*

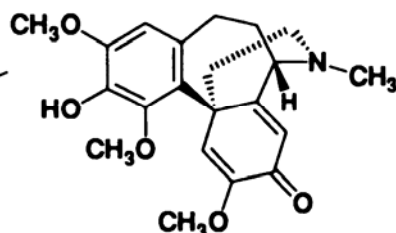
Thebaine

Fenylethylisochinolinyl

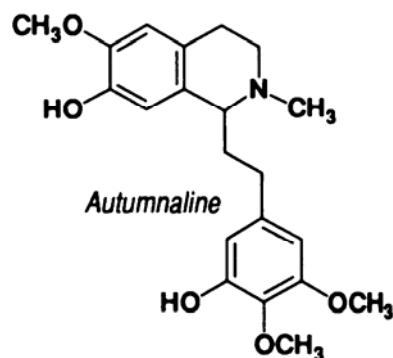
☞ Liliaceae - *Colchicum autumnale*



Colchicine



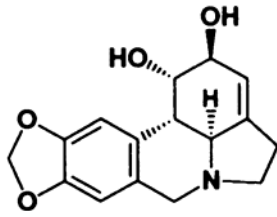
Androcymbine



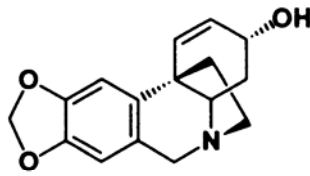
Autumnaline

Alkaloidy rostlin čeledi Amaryllidaceae

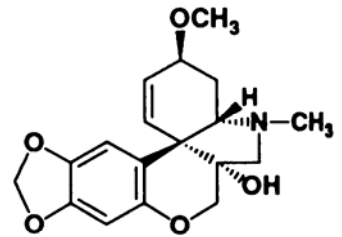
☞ *Galanthus* sp., *Narcissus* sp., *Crinum* sp., *Lycoris* sp. aj.



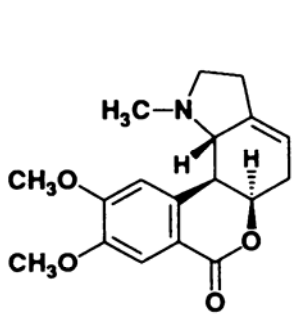
Lycorine



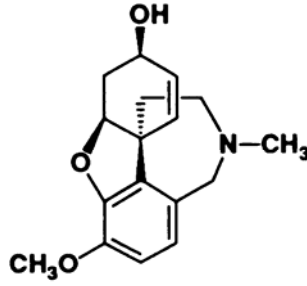
Crinine



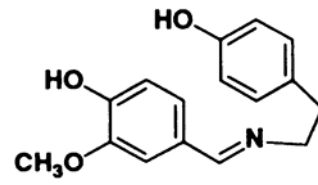
Tazettine



Homolycorine



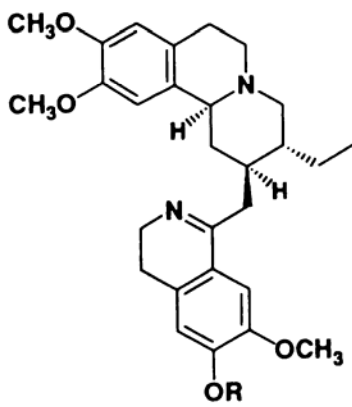
Galanthamine



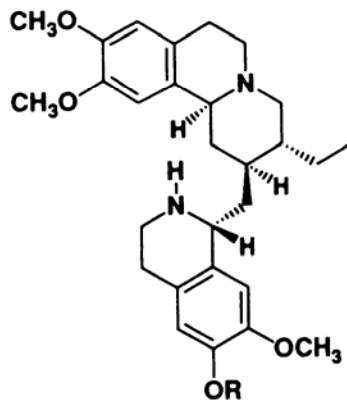
Isocraugosidine

Monoterpenoidní isochinoliný

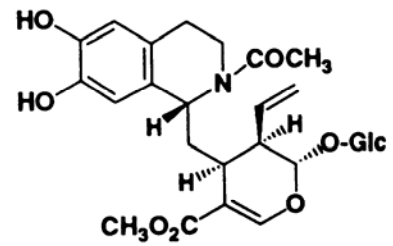
☞ Rubiaceae - *Cephaelis* sp.



R = H : Psychotrine
R = CH₃ : O-Methylpsychotrine



R = CH₃ : Emetine
R = H : Cepheline



Ipecoside