

Iridoids. Bitters. Essential oils (general part).

1. Classification of Terpenes (with examples for each group).
2. Definition and classification of Iridoids (with structural formulas for each group).
3. Physical and chemical properties of Iridoids.
4. Structure: isoprene, iridodial, aucubin, loganin, gentiopicroside, valtrate, dihydrovaltrate, baldrinal.
5. Pharmacological activity of Iridoids.
6. Definition and classification of «Bitters». Pharmacological activity and medicinal uses of Bitters.
7. Medicinal plants and plant raw materials containing Iridoids and Bitters: Gentian, Bogbean, Centaury, Dandelion, Hops, Motherwort, Valerian, Plantain, Cranberry.
8. Definition of «Essential oils». Differences between Essential oils and fatty oils.
9. Classification of Essential oils (with structural formulas for each group).
10. Physical and chemical properties of Essential oils.
11. Characteristic of method of Essential oils obtaining. Describe the process and variants of the distillation method. Describe the advantages and disadvantages of this method.
12. Determination of color, smell and taste of Essential oils according to the State Pharmacopoeia of Ukraine?
13. Determination of the admixtures in Essential oils according to the State Pharmacopoeia of Ukraine.
14. Characteristic of physical indexes of Essential oil quality.
15. Characteristic of chemical indexes of Essential oil quality.
16. Classification of monoterpenes of Essential oils (with examples for each group).
17. Classification of sesquiterpenes of Essential oils (with examples for each group).
18. Classification of aromatic components of Essential oils (with examples for each group).
19. Structure: 2,6-dimethyloctan, myrcene, linalool, citral, geraniol, *p*-menthan, α -terpinene, limonene, menthol, carvone, 1,4-cineol, 1,8-cineol, thujane, thujone, carane, pinane, pinene, camphane, borneol, camphor, bisabolane, cadinane, eudesmane, alantolactone, azulene, chamazulene, ledol, *p*-cymene, thymol, vanillin, anethol, eugenol.

- 20.Characteristic of quantitative determination of Essential oils in plants material.
- 21.Types of secretory structures of Essential oils in plants.
- 22.Pharmacological activity of Essential oils.
- 23.Medicinal plants and plant raw materials containing Essential oils:
Coriander, Lavender, Melisa, Peppermint, Sage, Caraway, Eucalyptus, plant sources of Camphor, Valerian, Juniper, Lime, Calamus, German Chamomile, Roman Chamomile, Elecampane, Wormwood, Yarrow, Birch, Labrador tea, Arnica, Aniseed, Star Anise, Fennel, Thyme, Wild Thyme, Pot Majoram, Ginger, Cinnamon, Turmeric, Clove.