

1. The clinical method used to measure blood viscosity.
2. The physical basis of clinical method of measuring blood pressure.
3. The biophysical basis of the effects of ultrasound in cells and tissues.
Application of ultrasound in diagnosis and treatment.
4. Thermotherapy. The applications of low temperatures in medicine.
5. Application of direct electric current in medicine. Galvanization.
Electrophoresis.
6. Application of the constant electric field of high voltage in medicine.
Franklinization. Aeroionotherapy.
7. Effects of pulsed electric current on the living organism. Cranial
electrotherapy stimulation. Electrical stimulators. Defibrillators.
8. Therapeutic factors and their application in medical techniques (UHF- and
SHF-therapy, microwave resonance therapy).
9. Effects of magnetic fields on the living organism. Magnetotherapy.
10. Nuclear magnetic resonance and electron paramagnetic resonance, their
application in medicine (magnetic resonance tomography).
11. Application of optical refractometry in pharmacy.
12. The principle of the concentration colorimetry, its application in pharmacy.
13. Polarimetry and its application in pharmacy.
14. The main types of the laser radiation applications in medicine.
15. Luminescence application in medicine and pharmacy.
16. Chemiluminescence and its diagnostic importance.
17. The principles of X-ray diagnostics (radiography) and X-ray therapy.
18. X-ray photoelectron spectroscopy and its application in pharmacy.
19. Methods of radioisotope medicine. The main physical and chemical methods
of protection against ionizing radiation.
20. Applications of radiopharmaceuticals.
21. Spectral analysis and its application in pharmacy.
22. Visible spectroscopy and its application in pharmacy.
23. Ultraviolet spectroscopy and its application in pharmacy.
24. Infrared spectroscopy and its application in pharmacy.
25. Mass spectroscopy and its application in pharmacy.
26. Chromatography its application in pharmacy.