

Forum:Seminar papers/Biophysics/2. LF/2013-2014/All topics

2012-13

Group 1

1. Ultrasound and its medical applications
2. Photometry

Group 2

1. Tissue biomechanics
2. Biosignals (generally)

Group 3

1. Physiological effect of electric current and electromagnetic fields
2. Electromagnetic ionizing radiation

Group 4

1. Optical microscopy
2. X-rays in medicine

2013-14

Group 1

1. Matter structure
2. Optics

Group 2

1. Radioactivity
2. Laser

Group 3

1. Acoustics
2. Electric and magnetic fields

Group 4

1. Electron microscopy
2. Thermodynamic system

The rest

1. Biomechanics of fluids and blood circulation
2. Biophysics of hearing
3. Doppler sonography
4. Nuclear magnetic resonance - NMR (MRI)
5. Thermodynamics and living organism
6. Influence of temperatures on human organism
7. Cell bioenergetics
8. Comparison of microscopic techniques (physical principle, application, resolution)
9. Biophysical principles in regenerative medicine
10. Liposomes and controlled drug delivery
11. Eye from the biophysical point of view
12. Fluorescence
13. Biological membrane and membrane transport
14. Cytoskeleton from the biophysical point of view
15. Tissues from the biophysical point of view
16. Electrical biosignals
17. Electrocardiography

18. Gamma rays in medicine

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32. Radioactivity
33. X-rays in medicine
34. Gamma rays in medicine