

FDITE04 Biophysical methods in photosynthesis

(Petar Lambrev)

Description:

The course introduces an array of modern biophysical methods used in photosynthesis research, covering basic principles, theoretical foundations and applications for students in physical sciences.

Topics:

Physico-chemical analysis

- Analytical chromatography

- Mass spectrometry

Electronic spectroscopy

- Absorption spectroscopy

- Fluorescence spectroscopy

- Polarization techniques

Vibrational and atomic spectroscopy

- FT infrared and Raman spectroscopy

- Vibrational CD

- X-ray spectroscopy

EPR and NMR spectroscopy

Transient spectroscopy

Scattering techniques

- Light scattering

- X-ray and neutron scattering

Recommended literature:

Thijs J Aartsma and Jorg Matysik: Biophysical Techniques in Photosynthesis, Springer, 2008