

Spectral properties and energy transfer in DNA fragment

Anton Hromov

Taras Shevchenko National University of Kyiv, Department of Experimental Physics

Spectral properties and energy transfer in DNA fragment.

Studied objects: single stranded HIV primers, telomeres fragment, polynucleotide poly(dAdT)₂, the oligonucleotide d(CCCGGGTTTAAA), the trimer d(ATC) and the low molecular model compounds dGMP, dAMP, dCMP and dTMP.

Measurement of absorption spectra, fluorescence and phosphorescence were carried out at various temperatures ($T = 4.2\text{K}, 77\text{K}, 300\text{K}$).

The system of energy sites and electronic processes in the oligonucleotides were examined.

The Jablonski diagram of studied samples was constructed, the paths of energy transfer were investigated.

References:

The nature of the electronic excitations capturing centres in the DNA
V Yashchuk, V Kudrya, M Losytskyy, H Suga, T Ohul'chanskyy

The lecture will be held in English.

Cordially invited to attend.

