

LIFETIME OF EXCITED STATES OF MONO- AND DIMER FORMS OF ORGANIC DYE METHYLEN BLUE

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Electronic absorption spectra of mono- and dimer forms of organic dye methylene blue have been studied. Methods of creating absorption spectra in value of molar extinction coefficient with respect to self-association processes of dye molecules in solution have been worked out. It has been determined that the lifetime τ of excited states of monomer and dimer forms of methylene blue differ and are $\tau_d = (2,8 \pm 0,2)10^{-8}$ sec and $\tau_m = (6,3 \pm 0,5)10^{-9}$ sec respectively.