

The influence of γ -irradiation on denaturation of dry bat collagen

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Determination of temperature dependence of the total pyroelectric coefficient has been used to study the influence of γ irradiation on thermal denaturation of BAT collagen. The character of the γ irradiation influence is related to the existence of more or less ordered regions in BAT collagen. The maximum value of the total pyroelectric coefficient depends on the absorbed dose. The temperature of the maximum of the total pyroelectric coefficient marks the beginning of the thermal denaturation process. The activation energy of charge carriers liberated during denaturation is determined by the kind of the dominant irradiation aftereffect. The research has been done for γ irradiation doses of 50 kGy and 500 kGy.