

FLUORESCENT PROBE INVESTIGATION OF MEMBRANE STRUCTURE ALTERATIONS IN RAT BLOOD LYMPHOCYTES UNDER LOW DOSE RATE γ -IRRADIATION

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Physicochemical parameters of membranes of rat blood lymphocytes have been studied. The rats were exposed to the long term external γ -irradiation with low dose rate (0,72 cGy/day) with doses of 30, 60 and 100 cGy. It has been found microviscosity and micropolarity alterations of membrane lipid phase of rat blood lymphocytes using pyrene fluorescent probe and also changes of 1-anilinonaphthalene-8-sulfonate binding parameters to membrane surface in rats exposed to the irradiation doses of 60 and 100 cGy. It was drawn a conclusion about oxidizing process enhancement in lymphocyte membranes conditions of long term low dose rate irradiation influence.