

Analysis of Conformational Changes in Calf Thymus DNA Induced by Ionizing Radiation from a ^{137}Cs Source Using UV Spectroscopy and CD Spectroscopy

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The interaction of ionizing radiation with living organisms and their components is a fundamental issue in the field of radiation protection. DNA, as the carrier of genetic information that is sensitive to mutations, and for this reason, understanding the nature of the impact of ionizing radiation on DNA is particularly important. The scope of presented work was applying two spectroscopic methods, ultraviolet spectroscopy and circular dichroism spectroscopy to analyze the changes in DNA, with focus on its conformation, that undergo in effect of low doses irradiation with β and γ rays.

Technical Track

Nuclear Applications and Radiation Processing

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