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Repozytorium

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Some aspects of the copper(II) - DNA interaction.

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Streszczenie

The Cu(II) ion interaction with calf-thymus DNA was studied by means of differential pulse polarography and sweep voltammetry as well as chromatography and viscosimetry. Most of the complexes formed at high ionic strength (0.2 M) and lower Cu(II) concentrations are of a nondenaturing nature. Their formation has but a minor effect on unwinding process of the DNA double helix. The excess of Cu(II) (P = 5) leads, however, to distinct denaturation of the DNA structure. Metal ions have little effect on the denaturation induced by the polarographic reduction of DNA on the mercury electrode. This conclusion is consistent with the character of the polarographic process and with the fact that Cu(II) ions are not very effective in the interaction with AT pairs. Cupric ions have no renaturing ability towards thermally denatured DNA at 0.2 M ionic strength but distinct renaturation was observed at low ionic strength (0.05 M

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