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**The study of the influence of activated solutions
on the behavior of living cells
by alternating cell electrophoresis**

**Graduation qualification
Proceeding**

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Conclusions

In this work, we studied the effect of contactlessly activated aqueous solutions on living *Saccharomyces cerevisiae* cells. Based on the results of the work done, the following conclusions can be drawn:

1. For the first time, the fact of the influence of contactlessly activated solutions on the electrokinetic properties of cells was experimentally discovered.

2. A technique has been developed to study the effect of contactlessly activated water on the electrokinetic properties of cells for use in studying the behavior of culture cells in activated media.

3. The experimental results showed that the value of the coefficient of variation of the electrokinetic properties (EKP) for the control cell suspension lies in the range of 9 ... 40%, for the experimental - in the range of 6 ... 21%. This suggests that the experimental culture is less susceptible to a tendency to increase heterogeneity of EKP, compared with the control cell culture.

4. The coefficient of variation of EKS cells upon exposure to them in a control medium (based on distilled water with a standard value of Eh) varies from 9% to 18%. While for experimental cells, the same indicator varies from 5 to 9%. The reduced level of variation of the coefficient of variation of the EKS cells indicates a greater homogeneity of the electrokinetic properties of cells in the experimental culture compared to the control.

5. In an experimental culture, the effect of negative ORP increases the adaptability of cells to adverse environmental conditions (including limitation by carbon source, weak negative osmotic shock). In this case, the effect of adverse environmental factors to some extent can be compensated by lowering the value of the ORP of the environment.

6. The results of the work can be used in areas where it is necessary to create adaptive conditions for obtaining a cell culture with predetermined homogeneous properties (biotechnology, medicine, microbiology, water treatment, etc.). The results of the work can be used in areas where it is necessary to create adaptive conditions for obtaining a cell culture with predetermined homogeneous properties (biotechnology, medicine, microbiology, water treatment, etc.).