



**CYANOBACTERIAS' *NOSTOC CALCICOLA* BDU 40302 AND *APHANOTHECE SALINA* ELENK ET DANIL.
ADAPTATION TO THE NEUTRAL AND ALKALINE PH MEDIUMS AND DIFFERENT SODIUM AND CALCIUM
SALTS CONCENTRATIONS**

Novikova A., Rodyuk K.

I.I. Mechnikov Odessa National University, Odessa, Ukraine

E-mail: anya_biofak@mail.ru

Taking into consideration the great role of cyanobacterias in nature and human life, the study of external environmental factors which influence their growth, has a large scientific and practical value. Halophilic cyanobacterias are examined as perspective objects of algae technologies. They can be used both for the improvement of the salts soils' agronomical properties and for getting the range of valuable products, especially polysaccharides.

The cyanobacterias' *Nostoc calcicola* BDU 40302 and *Aphanothece salina* Elenk et Danil. cultures were used for the



experiment. The culture medium ASN-III was used as a base one. It contained such Na^+ -ions' concentrations: 10, 50, 100, 200, 400 mM and Ca^{2+} -ions' concentrations - 0; 0,1; 0,5; 1; 3,5; 10; 20мМ. Cyanobacterias' growth was estimated on the change of optical transmission at a wave-length of 680 nm.

As a result of the obtained researches it was shown, that different cyanobacterias need different concentration of sodium and calcium ions at different pH. This fact gives us a possibility to speak about cultures' specific specificity and individual adaptation's mechanisms to the mediums with the different ions' concentrations.

АДАПТАЦИЯ ЦИАНОБАКТЕРИЙ *NOSTOC CALCICOLA* BDU 40302 И *APHANOTHECE SALINA* ELENK. ЕТ
DANIL. К НЕЙТРАЛЬНОМУ И ЩЕЛОЧНОМУ ЗНАЧЕНИЯМ PH СРЕДЫ КУЛЬТИВИРОВАНИЯ И РАЗНЫМ
КОНЦЕНТРАЦИЯМ СОЛЕЙ НАТРИЯ И КАЛЬЦИЯ

Новикова А.С., Родюк Е.А.

Изучение особенностей роста цианобактерий в средах с различными концентрациями ионов является актуальной проблемой, так как позволит оптимизировать их рост, а также выявить роль ионов в адаптационных процессах.