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PHYSIOLOGICAL AND BIOCHEMICAL STUDY OF AN ANTARCTIC MICROALGAL ISOLATE

R Zidarova[1], I Pouneva[2]

[1]University of Sofia "St. Climent Ohridski", Faculty of Biology, Department of Botany, Sofia, Bulgaria, [2]Institute of Plant Physiology, BAS, Sofia, Bulgaria

Chlorella sp. (Chlorophyta) was isolated from a soil sample, collected in the vicinity of the Bulgarian Antarctic Base on Livingston Island, Maritime Antarctica. The unialgal culture was grown in 4 inorganic media And cultivated in a block with temperature gradient (17^{o}C - 40^{o}C). The growth, pigment content (chlorophyll a, chlorophyll b and ß-carotene), ability to release oxygen and viability were determined after 24,48 and 72h of cultivation. The results showed that Shetlik-Simmer medium was optimal for the development of the antarctic Chlorella sp. ant that it is a eurythermal species, capable of growth in a wide temperature range (15^{o}C - 32^{o}C). Temperature optimum was 28^{o}C at which the growth,pigment and protein content,kinetic parameters of oxygen-evolving reaction and viability were highest.