

CHANGES OF PHOTOSYNTHETIC PIGMENTS CONCENTRATION IN THE
SYNCHRONOUS CULTURE OF *CHLORELLA VULGARIS* AS AN INDICATOR OF
WATER QUALITY IN GOCZAŁKOWICE RESERVOIR

ANNA CZAPLICKA-KOTAS, JOLANTA LODOWSKA, ADAM WILCZOK, ZBIGNIEW
ŚLUSARCZYK

Abstract: The aim of this study was to examine the possibility of use of synchronous culture of *Chlorella vulgaris* algae as a biotest in water quality control. In the experiment the samples of water collected from seven sampling points in Goczałkowice Reservoir were used. The criterion of changes was the concentration of photosynthetic pigments, from 24th hour of the cell life cycle, separated by HPLC technique. On the basis of changes taking place in the cells of the algae cultures it was possible to establish the timing of the flood period and autumnal changes in a water quality. It was also proved that the water quality in the main water current that fall into the western part of reservoir carried by the Wisła River after the flood period significantly differed from the water quality in the other parts of the reservoir, particularly in its eastern section.