

The Number and Size of Samples Required to Measure the Saprobe Population at Various Pollutant Concentrations in Sewage – Grzegorz Łagód, Henryk Sobczuk

Summary

The present work focuses on problems connected with the location and sampling method for pecton (biofilm) in sewage treatment plants. We also discuss the amount and quantity of pecton necessary to compose a representative sample. Comparisons of other selected contamination indicators in place of pecton sampling, are also presented. Research carried out at the WWTP "Hajdow" demonstrated that everything (starting from grid chambers), coming into contact with sewage surfaces is covered with biofilm. This biological formation does not cause any significant changes in sewage quality due to its relatively small surface compared to the sewage flux. As presented in the following analysis, pecton can be used for bioindication of sewage quality. This is possible because the organisms forming these communities use substances contained in flowing sewage as nutritional substrates. In such cases the wastewater purification level in biological sewage treatment plants can, in a way similar to rivers, be determined based on bioindication methods using existing similarities between the prevailing processes and organisms.