Reinhardtii Remediation

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A way of potentially preventing the increase of water pollution is the process of bio-remediation. This process includes exposing microorganisms to wastewater and pollutants and using their metabolic process to degrade substances that are harmful to the environment. I used the common model algae Chlamydamonas reinhardtii to test their ability to bioremediate a source of water with different amount sf phosphate and simultaneously track the cell densities. I hypothesized that the cell densities would increase as the phosphate levels reduced. This was proven correct as the algae in my experiment effectively remediated phosphate present within the bioreactors at a fairly steady pace. The density of these algae were also seen to have increased in density greatly based on the amount of phosphate in their environment. This information is important to test to be able to advance the development of bioremediation and other ways of combating rising levels of pollution in our sources of water.

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