

Abstract

The invention discloses a method to control micro algae growth and mitigation of microcystins, including the installation of algae control unit, algae control unit including metal drainage pipe and several charging chambers along the metal drainage pipe, one or more pairs of transmitters and receivers are installed in these charging chambers, electromagnetic waves are transmitted through water, the high energy point in these charging chambers are grounded through metal, generating high energy gradient electromagnetic wave in charging chambers, the invention uses repeatable high energy gradient intermittent shock treatment, which can provide more effective treatment for phytoplankton and other organisms, especially in freshwater environment, which can improve the killing effect of phytoplankton, and uses high gradient near-field ionic current to destroy the molecular structure of microcystins, especially benzene ring and O-H and N-H hydrogen bonds, compared with the existing treatment method, the invention can effectively solve microcystins problem.

Figure 1