MEANS OF INTENSIFICATION OF WATER BODIES SELF-REMEDIATION



A lake treated with material in summertime



A garden pond (treated with material for 5 years)

IPR Protection

IPR1

Areas of Application

The means are to be used for protecting the natural water reservoirs from pollution and algae overgrowth, increasing the fishery productivity, and for ensuring the ecological safety

Specification

The material for water treatment is a modified natural alumosilicate. It has a low plastic viscosity and forms a stable gel in water. It intensifies the photocatalytic processes resulting in producing active forms of oxygen, optimizing the oxidation of organic pollutants and the retention of heavy metal ions, and improving conditions for life and growth of aquatic organisms. To intensify the self-remediation of water bodies the material suspension $(0.1 \div 0.3\%)$ is pulverized above the water surface, alongshore, 2-3 times in summertime

Advantages

The materials provide a high degree of water purification from organic pollutants, which makes it possible to omit the herbicides and to enhance the productivity of fish (trout, bester, etc.) farming. The use of natural minerals results in a cheap cost of technology

Stage of Development. Suggestions for Commercialization

IRL8, TRL6

Materials and technology are ready for implementation in full-scale production and distribution, upon request

Contact Information

Kostiantyn O. Kazdobin, Vernadsky Institute of General and Inorganic Chemistry of the NAS Ukraine; +38 044 424 32 12, e-mail: kazdobin@ionc.kiev.ua