



Abstract

The enterprises` technology produces industrial water for much less than half of the costs of common technologies.

The technology can be used to optimise existing systems or to project new ones. The technology produces with much less energy costs, because of mainly using the gravity for agriculture, industries and households.

Description

Subject of the project is desalination of (surface) waters via the biotechnological process of bioaccumulation of sodium chloride. Embedded into a preliminary purification process (e.g. elimination of oil pollution via microorganisms) and possible after treatment process, depending on quality requirements. Results- fresh water extraction - from industrial water to drinking water. Also salt qualities special sodium chlorides (comparable to Sel de fleur) can be produced.

If substances are absorbed by organisms and resorbed, yet not biologically degraded, this leads to an accumulation of the substances in the biomass. This process is called bioaccumulation. Depending on the individual organism, this ability of accumulation is developed to different extents. Some species are capable of enriching even the lowest concentration of a substance from their surrounding medium for example in order to eliminate harmful and toxic or dangerous substances. These procedures play an especially important role particularly in the decontamination of non-degradable heavy metal salts too. The high salt concentration in fresh water surface waters such as rivers and lakes leads to a change of the biocenosis a significant influence on the human beings taking their industrial and drinking water from these waters. With his new technology it is possible to desalinate surface waters and to maintain their natural (measurable) fresh water status.

Innovations and advantages of the offer

The desalination process is based on modified, natural existing microorganisms. They are able to transport and solve it naturally with their semipermeable membrane (natural osmosis). In the course of this process crystalline structures appear on their surfaces, which were as overlap skimmed regularly and used to extract e.g. ski salt. The water phases sediment from each other through force of gravity after recovery and switching off the agitators.

For further information (including IPR status)

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