

Usefulness of wastewater treatment by activated sludge containing *Bacillus*

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In this study, we investigated the usefulness of energy-saving and space-saving wastewater treatment by activated sludge containing several species of *Bacillus* in a closed bio-ecosystem. Useful microorganisms contained in the activated sludge were also surveyed.

We revealed that the treated water after the treatment by the activated sludge inhibited growth of certain cyanobacteria. Furthermore, the activated sludge contained microorganisms that have antimicrobial activity against pathogenic fungi.

Keywords: closed bio-ecosystems, activated sludge, *Bacillus*