Description

Processing of water using~~by~~ microorganisms

[0001] The present invention relates to a method of microbiological processing of water, in particular waste waters from semiconductor production, and microorganisms which are suitable for use in such a method. In addition, the invention relates to a bioreactor, and also to a water processing plant having such microorganisms.

[0002] Semiconductor production sites globally are among the largest industrial water consumers. The highest requirements are made of the quality of the water required in the semiconductor industry. For instance, the water must be essentially completely free of particles and dissolved inorganic and organic components. In recent years, attempts have increasingly been made to reprocess waste waters from semiconductor production (hereinafter also called reclaim water) and to establish a circulation procedure in order to minimize consumption of fresh water. Such a procedure offers advantages in many aspects:

- Waste waters from semiconductor production generally have a better defined composition than fresh water, and therefore they may be treated more specifically.

- Waste waters from semiconductor production do not contain any significant amounts of inorganic components and hardness-forming agents (calcium or magnesium) and/or carbonates.

[0003] However, a problem for reprocessing is the rather high fractions of organic components with which