CLAIMS

[Claim 1]

An aerobic biological treatment method for treating water to be treated with aerobic organisms by dissolving oxygen in the water to be treated in a reaction tank using an oxygen dissolution membrane disposed in the reaction tank, wherein

a bioadhesive carrier within the reaction tank is suspended or fluidized to prevent adhesion of the organisms to the oxygen dissolution membrane;

the oxygen dissolution membrane is a hydrophobic non-porous membrane through which oxygen permeates whereby the permeated oxygen is dissolved in water to be treated within the reaction tank; and

the oxygen dissolution membrane has an average oxygen supply rate of 15 g-O_2/m^2/day or more.

[Claim 2]

The aerobic biological treatment method according to claim 1, wherein the bioadhesive carrier has a particle size of 0.1 to 20 mm and is added in an amount of 1 to 50% of the volume of the reaction tank.

[Claim 3]

An aerobic biological treatment method for treating water to be treated with aerobic organisms by dissolving oxygen in the water to be treated in a reaction tank using an oxygen dissolution membrane disposed in the reaction tank, wherein

the concentration of MLSS in the reaction tank is increased to 10,000 mg/L or more to prevent adhesion of the organisms to the oxygen dissolution membrane;

the oxygen dissolution membrane is a hydrophobic non-porous membrane through which oxygen permeates whereby the permeated oxygen is dissolved in water to be treated within the reaction tank; and

the oxygen dissolution membrane has an average oxygen supply rate of 15 g-O_2/m^2/day or more.