[CLAIMS]

[Claim 1]

A membrane separation method in which a combined-chlorine-based oxidizing agent is contained to water of interest, and the water of interest containing the combined-chlorine-based oxidizing agent is allowed to pass through a membrane separation apparatus, wherein

a ratio of [chlorine concentration after 300 seconds using free chlorine measurement reagent /total chlorine concentration] in the combined-chlorine-based oxidizing agent is 1% to 15%,

the water of interest containing the combined-chlorine-based oxidizing agent is the water of interest having a Free 300-second value of 0.036 mg/L-Cl_2 or more, while the Free 300-second value is a measurement result of a chlorine concentration after 300 seconds using a free chlorine measurement reagent, and

a stabilized combined chlorine concentration in the water of interest containing the combined-chlorine-based oxidizing agent is 0.1 mg/L-Cl_2 to 5.0 mg/L-Cl_2.

[Claim 2]

A membrane separation method in which a combined-chlorine-based oxidizing agent is contained to water of interest, and the water of interest containing the combined-chlorine-based oxidizing agent is allowed to pass through a membrane separation apparatus, wherein

a ratio of [chlorine concentration after 300 seconds using free chlorine measurement reagent /total chlorine concentration] in the combined-chlorine-based oxidizing agent is 1% to 15%,

the water of interest containing the combined-chlorine-based oxidizing agent is the water of interest having a Free 300-second value of 0.036 mg/L-Cl_2 or more, while the Free 300-second value is a measurement result of a chlorine concentration after 300

seconds using a free chlorine measurement reagent,

a stabilized combined chlorine concentration in the water of interest containing the combined-chlorine-based oxidizing agent is 0.1 mg/L-Cl_2 to 5.0 mg/L-Cl_2, and

the water of interest containing the combined-chlorine-based oxidizing agent is the water of interest having [Free 300-second value/Log_{10} (biofouling potential)] of 0.008 or more,

the Free 300-second value is a chlorine concentration (mg/L-Cl_2) obtained by containing a combined chlorine-based oxidizing agent to the water of interest and performing measurement after 300 seconds using a free chlorine measurement reagent in the water of interest containing the combined chlorine-based oxidizing agent, and

the biofouling potential is a number of bacteria (cfu/mL) in a sample when stored for 7 days when water of interest before containing a combined-chlorine-based oxidizing agent is stored under dark conditions at 30°C for 7 days.

[Claim 3]

The membrane separation method according to claim 1 or 2, wherein further

a biofouling potential is 1×10^3 to 1×10^7 cfu/mL in the membrane separation method, and

the biofouling potential is a number of bacteria (cfu/mL) in a sample when stored for 7 days when water of interest before containing a combined-chlorine-based oxidizing agent is stored under dark conditions at 30°C for 7 days.

[Claim 4]

The membrane separation method according to claim 1, wherein

the water of interest containing the combined-chlorine-based oxidizing agent is the water of interest having [Free 300-second value/Log_{10} (biofouling potential)] of 0.008 or more, and

the biofouling potential is a number of bacteria (cfu/mL) in a sample when stored

for 7 days when water of interest before containing a combined-chlorine-based oxidizing agent is stored under dark conditions at 30°C for 7 days.

[Claim 5]

The membrane separation method according to any one of claims 1 to 4, wherein

the combined-chlorine-based oxidizing agent is contained to the water of interest before the water is allowed to pass through a reverse osmosis membrane apparatus.

[Claim 6]

The membrane separation method according to any one of claims 1 to 5, wherein a ratio of [Free 300-second value/total chlorine concentration] in the water of interest containing the combined-chlorine-based oxidizing agent is 1% to 15%.

[Claim 7]

The membrane separation method according to any one of claims 1 to 6, wherein

(a) Free 300-second value and/or (b) biofouling potential are used as indicators, and based on the indicators, an addition amount of the combined-chlorine-based oxidizing agent to be contained to the water of interest is controlled, and

the biofouling potential is a number of bacteria (cfu/mL) in a sample when stored for 7 days when water of interest before containing a combined-chlorine-based oxidizing agent is stored under dark conditions at 30°C for 7 days.

[Claim 8]

The membrane separation method according to any one of claims 1 to 7, wherein

the membrane separation method is a method for suppressing biofouling or a method for operating an aqueous system equipped with the membrane separation apparatus.