

ABSTRACT

The first invention is directed to a seawater desalination system (S) for desalinating seawater and sewage water which includes a heat exchanger (6) for performing heat exchange between the seawater and sewage water or treated water of the sewage water. The second invention is directed to a seawater desalination system (S) for desalinating seawater and sewage water which includes: a membrane separation bioreactor treatment system (1) for treating sewage water by a membrane separation bioreactor; a first RO membrane (2) for removing, from permeated water (s5a) after passing through the membrane separation bioreactor treatment system (1), salt components to be contained in first concentrate brine water (s6), thereby producing industrial water (1); a UF membrane (3) having seawater permeate therethrough to remove particles contained in the seawater; a second RO membrane (5) having treated water (s5b) after passing through the UF membrane (3) permeate therethrough to remove from the treated water (s5b) salt components to be contained in second concentrate brine water (s7), thereby producing drinking water (s2); and a heat exchanger (6) for performing heat exchange between the seawater and the sewage water or treated water (s5a, s6, s1) of the sewage water.