

ABSTRACT

An object of the present invention is to, in a pure water production apparatus that utilizes a mixture of a plurality of kinds of feed water and uses a semi-permeable membrane, effectively utilize energy of concentrate discharged from a semi-permeable membrane unit and provide, at low cost, a pure water production apparatus and method that effectively use an isobaric type energy recovery unit that can efficiently recover energy against feed water variation. For the object, in a pure water producing method by supplying and having a plurality of kinds of feed water with different water qualities permeated through a semi-permeable membrane to produce the pure water, a portion (referred to as first feed water) of the plurality of kinds of feed water supplied to a semi-permeable membrane unit comprising the semi-permeable membrane is boosted by utilizing an isobaric type energy recovery unit that recovers pressure energy of concentrate discharged from the semi-permeable membrane unit, the rest (referred to as second feed water) of the plurality of kinds of feed water is boosted by a high pressure pump, and the boosted first and second feed water are supplied together to the semi-permeable membrane unit.