

CLAIMS

[1] A membrane module ~~characterized by comprising:~~

a casing; and

a plurality of membrane elements stored inside the casing,

5 wherein an opening area of a flow passage of the casing through which treated water outflows is smaller than an opening area of a flow passage of the casing through which treated water inflows; and

each membrane element is a flat membrane.

10 ~~[2] A membrane module as claimed in Claim 1, characterized in that the membrane element is a flat membrane.~~

[3][2] A membrane module as claimed in Claim 1 ~~or 2~~, further comprising characterized in that a flow stabilizing member is disposed at a lower end section of the membrane element to introduce treated water into a space between the membrane elements.

15 [4][3] A membrane module as claimed in ~~any of Claims 1 to 3~~ 2, further comprising ~~characterized in that~~ a water flow guide is disposed in the casing to reduce the opening area of the flow passage of the casing through which treated water outflow.

20 [5][4] A membrane unit ~~characterized by comprising:~~
a plurality of membrane modules each of which includes a casing formed with opening sections which are respectively opened in upward and downward directions, the membrane modules being stacked one upon another in a direction of height of the casing; and

a plurality of membrane elements stored inside each casing,
25 wherein each membrane module is configured such that an opening area of a flow passage of the casing through which treated water outflows is smaller than an opening area of a flow passage of the casing through which treated water inflows.

30 [6][5] A membrane separation apparatus ~~characterized by comprising:~~
a plurality of membrane modules each of which includes a casing formed with opening sections which are respectively opened in upward and downward directions;

a plurality of membrane elements stored inside each casing; and
an air diffusing device disposed below the membrane modules.

5 [7][6] A membrane separation apparatus as claimed in Claim 65, ~~characterized in~~
~~that wherein~~ the membrane modules are stacked one upon another in a direction of
height of the casing to configure a membrane unit.

[7] A membrane module substantially as herein described with reference to the
accompanying drawings.

[8] A membrane unit substantially as herein described with reference to the
accompanying drawings.

10 [9] A membrane separation apparatus substantially as herein described with
reference to the accompanying drawings.