CLAIMS

1. A flat ceramic membrane comprising:

a plate-shaped porous support made of ceramics; and

a filtration membrane formed on an outer surface of the porous support, wherein

inside the porous support, a plurality of water collection passages where filtrate water obtained by permeation of water-to-be-treated through the filtration membrane flows are formed, and a region where a distance between the water collection passages is different is ensured, and

a distance between the water collection passages, which are along a supply direction of air for membrane cleaning, in a region that is located in a vicinity of an end portion is greater than a distance between the water collection passages in a region that is a region other than the vicinity of the end portion.

2. The flat ceramic membrane as claimed in claim 1, wherein

a distance between the water collection passages, which are along the supply direction, at a middle portion is greater than the other distance between the water collection passages in the region other than the vicinity of the end portion.

3. The flat ceramic membrane as claimed in claim 1 or 2, wherein

a cross section of the water collection passage in the region located in the vicinity of the end portion is smaller than a cross section of the water collection passage in the region other than the vicinity of the end portion.

4. The flat ceramic membrane as claimed in any one of the preceding claims 1 to 3, wherein

a drain portion for draining the filtrate water supplied from one end openings of the water collection passages is fixed to one end portion of the porous support.