

ABSTRACT

ULTRAPURE WATER PRODUCTION APPARATUS AND METHOD FOR OPERATING

ULTRAPURE WATER PRODUCTION APPARATUS

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An ultrapure water production apparatus 1 is provided with a primary pure water system 2 and a subsystem 3. The primary pure water system 2 comprises a reverse osmosis membrane (RO) device 4 and a regenerating mixed bed-type ion exchange device 5, and after
10 said regenerating mixed bed-type ion exchange device 5, is provided with a boron monitor 6 as a boron concentration-measuring means and an electric deionization device 7. The subsystem 3 comprises a UV oxidation device 9, a non-regenerating mixed bed-type ion exchange device 10, and an ultrafiltration membrane 11. The boron
15 concentration of primary pure water W1 is continuously monitored by the boron monitor 6, and assuming that the product of the boron concentration [B] of the primary pure water W1 and the boron removal rate of the electric deionization device 7 is the boron concentration [B1] of the treated water W2, the boron concentration
20 of water supplied to the subsystem 3 is continuously monitored. With such an ultrapure water production apparatus 1, it is possible to efficiently remove boron and promptly prevent leaking thereof.

[FIG. 1]