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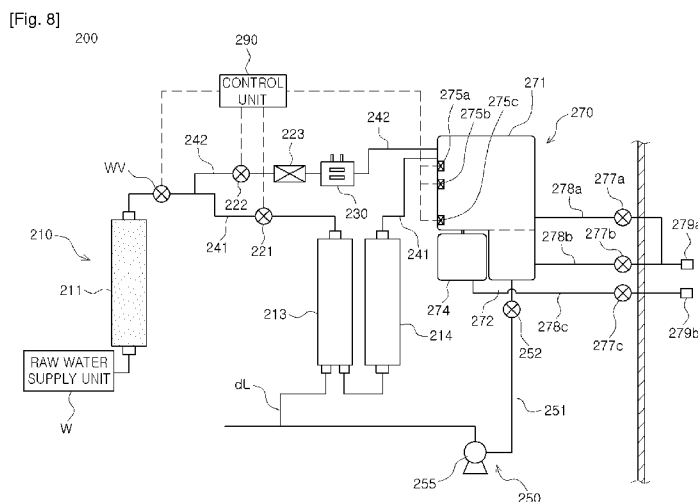
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[Continued on next page]

(54) **Title:** WATER TREATMENT APPARATUS AND STERILIZING AND CLEANSING METHOD THEREOF



(57) **Abstract:** A water treatment apparatus capable of sterilizing a storage tank and a sterilizing and cleansing method thereof are disclosed. The water treatment apparatus includes: a filter unit purifying raw water; a storage tank connected to the filter unit and storing purified water which has been filtered through the filter unit; an electrolytic sterilizer installed between the filter unit and the storage tank, electrolyzing only purified water which has been filtered through at least a portion of the filter unit to generate sterilization water, and supplying the sterilization water to the storage tank; a drain unit connected to the storage tank and discharging water accommodated in the storage tank; and a control unit controlling a water purification mode of the filter unit and a sterilization mode through the electrolytic sterilizer and the drain unit.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR2011/003722**A. CLASSIFICATION OF SUBJECT MATTER*****B01D 35/04(2006.01)i, C02F 1/44(2006.01)i, C02F 1/467(2006.01)i, B01D 61/02(2006.01)i***

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B01D 35/04; B01D 35/22; B01D 35/06; B01D 35/00; C02F 1/461; C02F 1/76

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: sterilize, electrolyze, disinfect, filter, drain, control, etc.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|-----------------------|
| X | KR 20-0353265 Y1 (DAEYANG SYSTEM CO., LTD. et al.) 26 June 2004 see abstract, page 3, 4 and figure 1. | 1-68 |
| A | KR 10-0647909 B1 (WOONGJIN COWAY CO., LTD.) 23 November 2006 see abstract, page 4, 5 and figure 2. | 1-68 |
| A | KR 10-2009-0104572 A (KOREA CLEAN SYSTEM CO., LTD.) 06 October 2009 See abstract, page 3 and figure 1. | 1-68 |
| A | KR 10-0894317 B1 (ELCHESYS CO., LTD.) 24 April 2009 See abstract and figure 4. | 1-68 |

 Further documents are listed in the continuation of Box C. See patent family annex.

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Information on patent family members

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| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|--|------------------|-------------------------|------------------|
| KR 20-0353265 Y1 | 26.06.2004 | None | |
| KR 10-0647909 B1 | 23.11.2006 | None | |
| KR 10-2009-0104572 A | 06.10.2009 | None | |
| KR 10-0894317 B1 | 24.04.2009 | KR 10-0919310 B1 | 01.10.2009 |