

2 級標準解答

問 1

1. A humidifier, comprising:

a water tank removably mounted to a main part having a humidified air outlet;

a water reservoir section for temporarily storing water supplied from the water tank, the water reservoir section being provided in the main section;

a generally rectangular vaporizing filter for vaporizing the water from the water reservoir section;

a filter mounting part for holding the vaporizing filter, the filter mounting part being formed in the water reservoir section;

a blower for blowing air to the vaporizing filter; and

a heater for heating air sent to the vaporizing filter from the blower, the heater being disposed in the vicinity of the vaporizing filter,

wherein the vaporizing filter includes a nonwoven fabric having a proportion of hydrophobic fibers higher than a proportion of hydrophilic fibers.

2. The humidifier according to claim 1, further comprising:

a humidity-control means having a humidity sensor provided in the humidified air outlet, and a controller for controlling the heater based on an output from the humidity sensor.

問 2

The method of the present invention may suitably be used for measuring the size of particulate matters suspended in atmospheric-air environment, and for analyzing the component therein. If particulate matters, suspended in atmospheric air, having diameters of several micrometers or less are clearly evaluated for the particle size distribution and the component therein, identification of the emission source of the particulate matters may be attained. Particulate matters having

particle size of 10 or less micrometers are called suspended particulate matter (SPM). The particulate matters are known to be suspended in atmospheric air for a long period of time, and also to intrude into the human body, where they cause illnesses. In particular, significant/considerable influence on the human body of the particulate matters (referred to as PM2.5) having a particle size of 2.5 or less micrometers is a concern<.> Analysis of inorganic components of the particulate matters has generally been performed by applying inductive coupling type plasma mass spectrometry (ICP-MS) for the particulate matters dissolved in solutions containing acids or alkalis.

問 3

[Second Embodiment]

[0055]

A second embodiment of the present invention will now be described with reference to the accompanying drawings. Fig. 6 is a schematic illustration of an information station 201 in accordance with the second embodiment of the present invention. The second embodiment is different from the first embodiment in that the information station 201 is connected to a hydraulic turbine generator 250 so as to receive electric power from the hydraulic turbine generator 250 and to monitor the operation of the hydraulic turbine generator 250. The configuration of the information station 201 will first be described briefly.

[0056]

The information station 201 basically has the same configuration and function as those of the information station 1 of the first embodiment described above. The description therefore will be focused on features that discriminate the second embodiment from the first embodiment, without referring to the structural and functional features common to the first embodiment. In FIG. 6, like reference numerals are used to denote the like or same components as those of the first embodiment. Those skilled in the art will readily appreciate that these components function in the same manner as those of

the first embodiment. The information station 201 includes components such as a camera 203, an antenna 204, a solar battery 206, and a secondary storage battery 209.