

Abstract

Provided is a water treatment device with which organic substances contained in raw water to be treated are decomposed to thereby alleviate the load to be imposed on a downstream filter and with which it is possible to avoid corrosion of the piping or the like.

The water treatment device 12 includes a large-bore channel 22, a small-bore channel 23, and a pressure pump 24 which pressurize raw water 15a to a given pressure, the raw water containing organic substances, and further includes a laser light source 25 and a condensing lens 26 which irradiates laser light 37 upon the pressurized raw water 15a to heat the raw water to a given temperature, wherein the laser light 27 emitted from the laser light source 25 is condensed by the condensing lens 26 on a region 29 that is located in the small-bore channel 23 through which the pressurized raw water 15a flows and that is separated from the wall of the channel, thereby heating the raw water 15a present in this region 29 and yielding supercritical water or subcritical water to decompose the organic substances contained in the raw water 15a.