

HYDROTHERMAL TREATMENT DEVICE AND HYDROTHERMAL TREATMENT SYSTEM

Abstract

A hydrothermal treatment device (10) includes a sealable vessel (11), a temperature measurement device (18) for measuring the internal temperature of the sealable vessel (11), an introduction pipe (14) for introducing steam into the sealable vessel (11), a solenoid valve (15) configured in the introduction pipe (14), a depressurization device (17), and a control device (19). After waste containing organic matter is fed to the sealable vessel (11), the control device (19) performs control in the manner described below to perform a hydrothermal reaction of the waste containing organic matter. Namely, after the internal temperature is increased to a first temperature, the first temperature is maintained for a first length of time and then made to decrease, after the internal temperature decreases from the first temperature to a second temperature, the second temperature is maintained for a second length of time (approximately equal to or longer than the first length of time) and then made to increase, the internal temperature thus reaches a third temperature which is approximately equal to the first temperature, the third temperature is maintained for a third length of time which is similar to the first length of time, and the temperature is then decreased.

(Fig. 2)