

ONLINE ISSN : 1880-7577 PRINT ISSN : 0021-4795

**Mokuzai Gakkaishi** Vol. 55 (2009), No. 5 p.279-284

[PDF (1052K)] [References]

## Equilibrium Moisture Content of Japanese Cedar (*Cryptomeria japonica*) Green Wood for Columns in a High-Temperature Water Vapor Environment

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(Received June 30, 2008) (Accepted November 25, 2008)

Abstract: Changes in the moisture content of Japanese cedar (*Cryptomeria japonica* D. Don) green wood for columns with the dimensions of 110×110×1000 mm during drying in environments of over 100°C and 1 atm were measured. Temperature and mass were measured in an airtight chamber. The set temperature and gauge pressure ranges were 110 to 140°C and 0.01 to 0.24 MPa, respectively. The experimental measuring system was suitable for understanding whether or not the mass of the specimens was stable. The change in the temperature of a specimen was roughly divided into 4 ranges. At lower temperatures and pressures, the equilibrium moisture content was similar to previous estimates and measurements, while at higher temperatures and pressures it differed from the previous values.

*Keywords:* real time measurement, moisture content, high temperature, high pressure, material for columns

[PDF (1052K)] [References]

To cite this article:

Yoshitaka Kubojima, Isao Kobayashi, Mario Tonosaki and Youki Suzuki: Mokuzai Gakkaishi Vol. 55, No. 5, 279-284 (2009) .

doi:10.2488/jwrs.55.279 JOI JST.JSTAGE/jwrs/55.279

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